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# Delaware Register of Regulations

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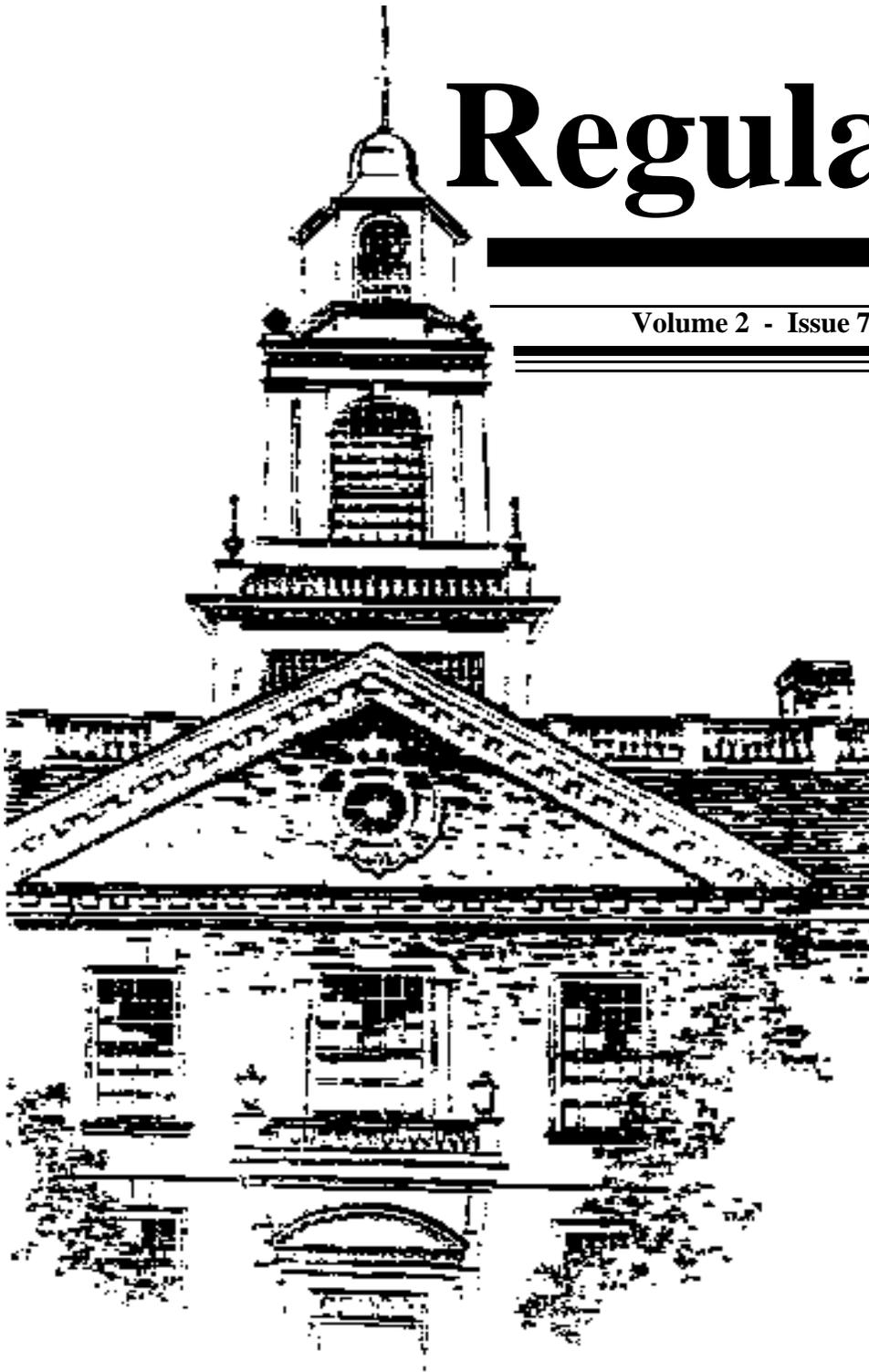
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- Emergency
- Proposed
- Final

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- Appointments
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- Calendar of Events &  
Hearing Notices



Pursuant to 29 Del. C. Chapter 11, Subchapter III, this issue of the Register contains all documents required to be published, and received on or before December 15, 1998.

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# INFORMATION ABOUT THE DELAWARE REGISTER OF REGULATIONS

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## DELAWARE REGISTER OF REGULATIONS

The Delaware Register of Regulations is an official State publication established by authority of 69 Del. Laws, c. 107 and is published on the first of each month throughout the year.

The Delaware Register will publish any regulations that are proposed to be adopted, amended or repealed and any emergency regulations promulgated.

The Register will also publish some or all of the following information:

- Governor's Executive Orders
- Governor's Appointments
- Attorney General's Opinions in full text
- Agency Hearing and Meeting Notices
- Other documents considered to be in the public interest.

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### CITATION TO THE DELAWARE REGISTER

The Delaware Register of Regulations is cited by volume, issue, page number and date. An example would be:

1:1 **Del. R.** 35 - 37 (July 1, 1997) refers to Volume 1, Issue 1, pages 35 - 37 of the Delaware Register issued on July 1, 1997.

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### SUBSCRIPTION INFORMATION

The cost of a yearly subscription (12 issues) for the Delaware Register of Regulations is \$120.00. Single copies are available at a cost of \$12.00 per issue, including postage. For more

information contact the Division of Research at 302-739-4114 or 1-800-282-8545 in Delaware.

### CITIZEN PARTICIPATION IN THE REGULATORY PROCESS

Delaware citizens and other interested parties may participate in the process by which administrative regulations are adopted, amended or repealed, and may initiate the process by which the validity and applicability of regulations is determined.

Under 29 **Del.C.** §10115 whenever an agency proposes to formulate, adopt, amend or repeal a regulation, it shall file notice and full text of such proposals, together with copies of the existing regulation being adopted, amended or repealed, with the Registrar for publication in the Register of Regulations pursuant to §1134 of this title. The notice shall describe the nature of the proceedings including a brief synopsis of the subject, substance, issues, possible terms of the agency action, a reference to the legal authority of the agency to act, and reference to any other regulations that may be impacted or affected by the proposal, and shall state the manner in which persons may present their views; if in writing, of the place to which and the final date by which such views may be submitted; or if at a public hearing, the date, time and place of the hearing. If a public hearing is to be held, such public hearing shall not be scheduled less than 20 days following publication of notice of the proposal in the Register of Regulations. If a public hearing will be held on the proposal, notice of the time, date, place and a summary of the nature of the proposal shall also be published in at least 2 Delaware newspapers of general circulation. The notice shall also be mailed to all persons who have made timely written requests of the agency for advance notice of its regulation-making proceedings.

The opportunity for public comment shall be held open for a minimum of 30 days after the proposal is published in the Register of Regulations. At the conclusion of all hearings and

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# INFORMATION ABOUT THE DELAWARE REGISTER OF REGULATIONS

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after receipt, within the time allowed, of all written materials, upon all the testimonial and written evidence and information submitted, together with summaries of the evidence and information by subordinates, the agency shall determine whether a regulation should be adopted, amended or repealed and shall issue its conclusion in an order which shall include: (1) A brief summary of the evidence and information submitted; (2) A brief summary of its findings of fact with respect to the evidence and information, except where a rule of procedure is being adopted or amended; (3) A decision to adopt, amend or repeal a regulation or to take no action and the decision shall be supported by its findings on the evidence and information received; (4) The exact text and citation of such regulation adopted, amended or repealed; (5) The effective date of the order; (6) Any other findings or conclusions required by the law under which the agency has authority to act; and (7) The signature of at least a quorum of the agency members.

The effective date of an order which adopts, amends or repeals a regulation shall be not less than 10 days from the date the order adopting, amending or repealing a regulation has been published in its final form in the Register of Regulations, unless such adoption, amendment or repeal qualifies as an emergency under §10119.

Any person aggrieved by and claiming the unlawfulness of any regulation may bring an action in the Court for declaratory relief.

No action of an agency with respect to the making or consideration of a proposed adoption, amendment or repeal of a regulation shall be subject to review until final agency action on the proposal has been taken.

When any regulation is the subject of an enforcement action in the Court, the lawfulness of such regulation may be reviewed by the Court as a

defense in the action.

Except as provided in the preceding section, no judicial review of a regulation is available unless a complaint therefor is filed in the Court within 30 days of the day the agency order with respect to the regulation was published in the Register of Regulations.

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## CLOSING DATES AND ISSUE DATES FOR THE DELAWARE REGISTER OF REGULATIONS

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ISSUE DATE	CLOSING DATE	CLOSING TIME
FEBRUARY 1	JANUARY 15	4:30 P.M.
MARCH 1	FEBRUARY 15	4:30 P.M.
APRIL 1	MARCH 15	4:30 P.M.
MAY 1	APRIL 15	4:30 P.M.
JUNE 1	MAY 15	4:30 P.M.

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**THE FOLLOWING FINAL REGULATION WAS INCORRECTLY PUBLISHED IN THE DECEMBER ISSUE OF THE REGISTER AT PAGES 987 - 988. THE CORRECT VERSION IS PRINTED BELOW.**

## **DEPARTMENT OF HEALTH AND SOCIAL SERVICES**

### **DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 505 (31 Del.C. 505)

#### **Coverage Under The MCO Benefits Package**

Eligible MCO beneficiaries will receive two (2) insurance cards. One card will be issued by the MCO and valid for the services included in the MCO benefit package chosen by the beneficiary.

The services listed below are included when medically necessary in the MCO Benefit Package for both the categorically eligible and expanded population and should not be billed to the Medicaid program:

- Physician;
- Inpatient and outpatient hospital – includes all pharmaceuticals and blood products;
- Independent laboratory;
- Home health;
- Emergency transportation;
- Medically necessary durable medical equipment/supplies;
- Podiatry;
- Optometry/optician;
- Rehabilitation agency;
- Ambulatory surgical center;
- Dialysis center;
- Family planning - These services can be directly accessed by Medicaid individuals without prior authorization through any Medicaid provider (who will bill the MCO and be paid on a fee-for-service basis);
- Nurse/midwife;
- Certified registered nurse practitioner;
- General medical clinic services except environmental investigation for source for lead and Preschool Developmental Diagnostic Nursery;
- EPSDT screening clinic except Part ~~H~~ C Multidisciplinary Assessment;
- Methadone clinic;
- Hospice;
- Extended pregnancy;
- EPSDT group and individual services;

- EPSDT nutrition services, occupational, speech and physical therapies.
- Mental health and substance abuse services: for children, up to 30 outpatient units; for adults, up to 20 outpatient days and 30 inpatient days (an unused inpatient day can be exchanged for three (3) outpatient days or two (2) residential treatment days).
- Federally Qualified Health Center.
- Skilled nursing services in a nursing facility up to 30 day annual limit.
- ~~Private duty nursing services~~
- ~~Preschool Developmental Diagnostic Nursery (PDDN);~~
- ~~Prescribed Pediatric Extended Care (PPEC) services for clients under the age of 21.]~~

Some MCOs may include additional benefits, such as eye exams and eyeglasses for adults, which are not mandated by the DMAP to be part of the basic benefit.

#### **Additional Services Are Covered Under The Medical Assistance Program**

The second insurance card will be a Medical Assistance card that will be used for services not covered by the MCO benefits package but reimbursed by the Medical Assistance Program. These services are often referred to as “wrap around services”. The categorically eligible and the expanded population receive a different package of “wrap around services”.

#### Wrap Around Services that are Covered for the Categorically Eligible Medicaid Recipient

The services listed below are not included in the MCO Benefit Package but are covered for the categorically eligible Medicaid recipient using their Medical Assistance Card:

- Pharmacy (only if dispensed by a pharmacy provider to a client or the client’s representative for use in other than a hospital setting).
- Extended behavioral health services authorized by the Division of Alcoholism, Drug Abuse, and Mental Health (DADAMH) for adults deemed severely and persistently ill (SPI).
- Non-emergency transportation.
- Day health and rehabilitation.
- ~~Private duty nurse services that exceed 28 hours per week that are authorized by Medicaid staff.~~
- Environmental investigation for source of lead provided by DPH for recipients under age 21.
- **[Preschool Developmental Diagnostic Nursery.]**
- Part ~~H~~ C Multidisciplinary Assessment.
- Dental clinic services for recipients under age 21.

- **[Prescribed Pediatric Extended Care (PPEC) services for recipients under the age of 21 that are authorized by Medicaid staff.]**
  - EPSDT/CSCRIP services provided by enrolled school districts.
  - Chronic renal disease program transportation services authorized by Medicaid staff.
  - Part H C developmental therapy and social work.
  - Behavioral health services for children authorized by the Department of Services for Children, Youth, and Their Families.
-

**Symbol Key**

Roman type indicates the text existing prior to the emergency regulation being promulgated. Italic type indicates new text. Language which is stricken through indicates text being deleted.

**Emergency Regulations**

Under 29 Del.C. §10119, if an agency determines that an imminent peril to the public health, safety or welfare requires the adoption, amendment or repeal of a regulation with less than the notice required by 29 Del.C. §10115, then the following rules shall apply: (1) The agency may proceed to act without prior notice or hearing or upon any abbreviated notice and hearing that it finds practicable; (2) The order adopting, amending or repealing a regulation shall state in writing the reasons for the agency's determination that such emergency action is necessary; (3) the order effecting such action may be effective for a period of not longer than 120 days and may be renewed once for a period not exceeding 60 days; (4) When such an order is issued without any of the public procedures otherwise required or authorized by Chapter 101 of Title 29, the agency shall state as part of the order that it will receive, consider and respond to petitions by any interested person for the reconsideration or revision thereof; and (5) The agency shall submit a copy of the emergency order to the Registrar for publication in the next issue of the Register of Regulations.

**DEPARTMENT OF HEALTH  
AND SOCIAL SERVICES**

**DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 512 (31 **Del.C.** 512)

PUBLIC NOTICE  
DIVISION OF SOCIAL SERVICES  
FOOD STAMP PROGRAM

Delaware Health and Social Services has implemented on an emergency basis the below revision of regulations contained in the Division of Social Services Manual Section 9085 and is accepting from any interested person petitions for reconsideration or revision thereof. Such petitions must be forwarded by January 31, 1999 to the Director, Division of Social Services, P. O. Box 906, New Castle, DE 19720.

BEFORE DELAWARE HEALTH AND  
SOCIAL SERVICES

IN THE MATTER OF: |

REVISION OF REGULATION |  
CONTAINED IN DSSM 9085 |

**NATURE OF THE PROCEEDINGS:**

Delaware Health and Social Services has determined that a threat to the public welfare exists if revision of regulations contained in DSSM Section 9085 is not implemented without prior notice or hearing. Failure to do so would delay the Division of Social Services' effort to

reduce the high food stamp error rate and puts the State in jeopardy of being sanctioned for FY 1999.

**NATURE OF PROPOSED REVISIONS:**

**9085 Reporting Changes**

Certified households are required to report the following changes in circumstances:

Changes in the sources of or in the amount of gross unearned income of more than \$25, except changes in the public assistance grant or GA grant in project areas where the GA grant and the food stamp application are jointly processed. Since DSS has prior knowledge of all changes in the public assistance grant and general assistance grants, action shall be taken on the DSS information. Changes reported in person or by telephone are to be acted upon in the same manner as those reported on the change report form;

Changes in the amount of gross earned income will be reported as follows:

- a. New source of employment, or
- b. Changes in the hourly rate or salary of current employment, or
- c. Changes in employment status from part-time to full-time.

**FINDING OF FACT**

The Department finds that these changes should be made in the best interest of the general public of the State of Delaware. The Department will receive, consider, and respond to petitions by any interested person for the

reconsideration or revision thereof.

THEREFORE, IT IS ORDERED, that the proposed revision to the regulation be adopted on an emergency basis, without prior notice or hearing, and shall become effective immediately.

December 8, 1998  
GREGG C. SYLVESTER, MD  
SECRETARY

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Proposed Policy:

**9085 Reporting Changes**

Certified households are required to report the following changes in circumstances:

Changes in the sources of ~~income~~ or in the amount of gross unearned income of more than \$25, except changes in the public assistance grant or GA grant in project areas where the GA grant and the food stamp application are jointly processed. Since DSS has prior knowledge of all changes in the public assistance grant and general assistance grants, action shall be taken on the DSS information. Changes reported in person or by telephone are to be acted upon in the same manner as those reported on the change report form;

Changes in the amount of gross earned income will be reported as follows:

- New source of employment, or
  - Changes in the hourly rate or salary of current employment, or
  - Changes in employment status from part-time to full-time.
- 

**DEPARTMENT OF NATURAL  
RESOURCES AND  
ENVIRONMENTAL CONTROL**

**DIVISION OF FISH & WILDLIFE**

Statutory Authority: 7 Delaware Code,  
Section 1902 (7 **Del.C.** 1902)

In Re: Adoption of an Amendment to Shellfish  
Regulation No. S-55-A without notice or  
hearing to change the dates of a public lottery  
for horseshoe crab dredge permits.

Order No. 98-F-0047

**ORDER**

**AUTHORITY**

Pursuant to 29 Del. C. §10119, The Department of Natural Resources and Environmental Control is adopting an amendment to Shellfish Regulation No. S-55-A without prior notice or public hearing to change the dates in 1999. The Department will accept applications for 1999 commercial horseshoe crab dredge permits and the date a lottery will be held in 1999 if more than five qualified applications are received. Subsection 1902, 7 Del. C. authorizes the Department to amend regulations, consistent with the law to provide for the issuance of shellfish licenses.

**REASON FOR EMERGENCY ORDER**

Legislation (HB208), enacted in February, 1998, takes effect December 31, 1998. It was enacted by the 139<sup>th</sup> General Assembly to change the effective dates for shellfishing licenses and permits from a period beginning May 1 through April 30 to the calendar year. The Department had adopted Shellfish Regulation No. S-55-A, HORSESHOE CRAB DREDGE PERMIT LOTTERY in April 1997. This regulation established an annual lottery to be held by the Department on May 1 if more than five qualified applications for a horseshoe crab dredge permit are received by the Department by April 30.

Subsection 2703, 7 Del. C. limits the number of commercial horseshoe crab dredge permits to no more than five (5) during any calendar year. To be eligible for a commercial horseshoe crab dredge permit, an individual must be the current owner and operator of an oyster vessel licensed to transplant oysters from natural oyster beds as provided under the provisions of Chapter 19 of Title 7 of the Del.C. and Shellfish Regulation No. S-37. According to the

provisions of Shellfish Regulation No. S-37, the Council on Shellfisheries shall recommend approval or disapproval to the Department for issuing an oyster vessel license to an individual for a vessel that was not previously licensed to be used for transplanting oysters from natural oyster beds in Delaware Bay. The Council on Shellfisheries is next scheduled to meet on January 25, 1999. Individuals, who own and operate vessels not previously licensed for transplanting oysters from natural oyster beds in Delaware Bay, should have the opportunity to have their applications for said license reviewed by the Council on Shellfisheries on January 25, 1999. If approved, they become eligible to apply to the Department for a commercial horseshoe crab dredge license.

Due to an administrative oversight, Shellfish Regulation No. S-55-A has not been amended to accommodate the change in dates as a result of HB208. Consequently, unless the Department enacts an amendment to Shellfish Regulation S-55-A that changes the date commercial horseshoe crab dredge permit applications for 1999 are to be submitted to the Department and the date for a subsequent lottery, the Department will not have an updated administrative policy to follow for issuing commercial horseshoe crab dredge permits in 1999. Individuals who want to participate in commercial dredging for horseshoe crabs in 1999, may be denied a permit until May 1, 1999 under the current administrative policy in Shellfish Regulation No. S-55-A. Consequently, these individuals' welfare could face imminent peril by not being permitted to dredge horseshoe crabs for sale to others.

The Department will change the date for accepting applications for commercial horseshoe crab dredge permits for 1999 from April 30 to January 27, 1999. If more than five (5) qualifying applications are received by January 27, 1999, then a lottery will be held on January 29, 1999. An applicant is qualified to apply for a commercial horseshoe crab dredge permit if he/she is the current owner and operator of an oyster vessel licensed to transplant oysters from natural oyster beds. Each individual qualified for a horseshoe crab dredge permit will be notified of these changes.

#### EFFECTIVE DATE OF ORDER

This order shall take effect on January 1, 1999, and shall remain in effect for 120 days.

#### PETITIONS FOR RECOMMENDATION

The Department will receive, consider and respond to petitions by any interested person for recommendations or revisions to this order. Petitions should be presented to the Fisheries Section, Division of Fish and Wildlife, 89 Kings Highway, Dover, DE, 19901.

#### ORDER

It is hereby ordered, the 15th day of December, 1998, that the above referenced amendment to Shellfish Regulation No. S-55-A, a copy of which is attached hereto, is adopted pursuant to 29 Del. C. §10119.

Mary McKenzie, Acting Secretary  
Department of Natural Resources  
and Environmental Control

Pursuant to 29 Del. C., §10119, The Department of Natural Resources and Environmental Control amends Shellfish Regulation No. S-55-A HORSESHOE CRAB DREDGE PERMIT LOTTERY as follows:

Section 1. Amend Shellfish Regulation No. S-55-A, HORSESHOE CRAB DREDGE PERMIT LOTTERY, by adding a new subsection to read as follows:

“(c) Notwithstanding the provisions of subsections (a) and (b) of this regulation, the deadline for applications for commercial horseshoe crab dredge permits for the 1999 season shall be 4:30 PM on Wednesday, January 27, 1999. The lottery, if any, shall be held on Friday, January 29, 1999.”

#### Section 2. EFFECTIVE DATE

This amendment to Shellfish Regulation No. S-55-A shall become effective January 1, 1999 and shall remain in effect for 120 days.

**PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF THE  
PROMULGATION OF RULES  
REGARDING THE DISCOUNTS  
FOR INTRASTATE  
TELECOMMUNICATIONS  
AND INFORMATION SERVICES  
PROVIDED TO SCHOOLS AND  
LIBRARIES (OPENED JUNE 17, 1997)**

PSC  
REGULATION  
DOCKET NO. 47

**ORDER NO. 4984**

This 15th day of December, 1998, the Commission finds, determines, and Orders the following:

1. Pursuant to 47 U.S.C. § 254(c) & (h), the Federal Communications Commission (“FCC”) established, in 1997, a federal universal support program for schools and libraries within this country. Under the federal program, telecommunications services, Internet access, and internal wiring are provided to eligible schools and libraries at varying discounts. In turn, the telecommunications carriers and other providers who provide such discounted services are reimbursed with federal universal service support. See 47 C.F.R. §§ 54.500-54.519. Under the FCC’s implementing rules, federal universal support is available for intrastate, as well as interstate supported, services provided to schools and libraries so long as a state establishes discounts for such intrastate services no less than the interstate discounts established by the FCC for interstate services. 47 C.F.R. § 54.505(e)(1).

2. In PSC Order No. 4555 (July 15, 1997), the Commission, acting pursuant to the authority granted by HJR 9 of the 139th General Assembly (July 9, 1997) (“HJR 9”), adopted a matrix of discounts to govern the prices and rates for supported intrastate telecommunications services provided to eligible schools and libraries. The Commission adopted price discounts equal to those available for interstate services to allow carriers and other providers to be eligible for federal support for both interstate and intrastate services provided to this State’s schools and libraries. At the time of this Order, the federal universal service program for schools and libraries was scheduled to begin July 1, 1997.

3. In PSC Order No. 4601 (Sept. 23, 1997), the Commission promulgated formal regulations to govern the intrastate discounts for Delaware’s schools and libraries. In those regulations, the Commission re-affirmed the discount matrix previously adopted in PSC Order No. 4555. See “Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support” (“S&L Rules”). As the S&L Rules

emphasize, the sole purpose for the state rules was to allow telecommunications carriers within this State to receive federal support for both intrastate and interstate services provided to eligible schools and libraries. The rules did not attempt to create any state universal service fund.

4. During the Commission’s consideration of the S&L Rules, several participants suggested that the Commission revisit the rules and the discounts after this State’s schools, libraries, and carriers had experience with the new FCC universal service support program. Thus, Section 1.2 of the S&L Rules presently provides:

**1.2 Duration**

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until December 31, 1998. The Commission may hereafter alter, amend, or repeal these rules and may extend the expiration date for these rules.

5. Since 1997, the FCC has made several changes to the federal universal service program for schools and libraries. These alterations include the funding year cycle and resetting the priorities for disbursing the funds initially collected. Thus, although the window for schools and libraries to initially apply for support opened and closed in the first quarter of 1998, the “first wave” of funding commitments for services provided in the initial, elongated January, 1998 - June, 1999 funding cycle were not announced until late November and early December, 1998. Several Delaware schools were included in this “first wave” of awards. At the same time, the window is now open for applications to be made for support for services to be provided in the next funding year, July, 1999 through June, 2000.

6. As noted above, in order for carriers and other providers to receive federal support for intrastate services provided to schools and libraries, a state must provide for discounts at least as deep as those prescribed by the FCC for interstate services. In addition, schools and libraries are required to reapply for support each year. Thus, in order not to jeopardize funding commitments granted to Delaware schools and libraries for the current funding cycle, and in order to ensure that Delaware schools and libraries can timely apply for federal universal service support for the 1999-2000 funding year (as well as later years), it is essential that the intrastate discounts set forth in PSC Order No. 4555 and in the S&L Rules continue to be effective past December 31, 1998.

7. Currently, there is insufficient time for the Commission to undertake the notice, comment, and hearing proceedings under 29 Del. C. §§ 10115-10118 prior to amending Section 1.2 of the S&L Rules to remove the

expiration date of December 31, 1998. However, the Commission now determines that it should act under the emergency procedures of 29 Del. C. § 10119 and now amend that section to delete the expiration date. By doing so, the Commission will remove any suggestion that the intrastate discounts (and, hence, federal universal support) will lapse after December 31, 1998. The Commission determines that such action is necessary to ensure that Delaware schools and libraries are not denied the opportunity to continue to receive and seek universal service support. In addition, the Commission believes that HJR 9 - which originally allowed the Commission to adopt an intrastate discount matrix without full compliance with the notice, comment, and hearing procedures of 29 Del. C. §§ 1131-35 and ch. 101 - reflects a legislative and gubernatorial desire that the Commission act in a manner which will ensure that Delaware schools and libraries not be hindered in their ability to apply for and receive federal universal service support. Removing the expiration date in the present Section 1.2 - and thus continuing the S&L Rules - will preserve federal support for intrastate services provided to Delaware schools and libraries. Finally, continuation of the rules will not undercut the review process which may have motivated, in part, the inclusion of the expiration date. As noted above, the onset of the federal support program has been marked with some delay and changes. Given that initial funding commitments were not announced until late in 1998, there is, as of now, little significant experience under the federal program which could be used to re-evaluate the S&L rules.

8. Consequently, pursuant to 29 Del. C. § 10119, the Commission amends Section 1.2 of the S&L rules to read as follows:

#### 1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

Such emergency amendment shall become effective seven (7) days from the date of this Order and shall remain in effect for 120 days thereafter, unless the effective period is further extended by the Commission.

9. Contemporaneously, the Commission will also begin the notice, comment, and hearing procedure to amend Section 1.2 on a permanent basis. To that end, the Commission will provide for public notice, the opportunity for comment, and a public hearing.

Now, therefore, **IT IS ORDERED:**

1. That, pursuant to 29 Del. C. § 10119, the Commission hereby amends Section 1.2 of its "Interim

Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" (adopted in PSC Order No. 4601 (Sept. 23, 1997)) to read as follows:

#### 1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

2. That, pursuant to 29 Del. C. § 10119(3), the amendment set forth in paragraph 1 above shall become effective seven (7) days from the date of this Order and shall remain in effect for 120 days thereafter, unless the effective period is further extended by the Commission. Prior to the expiration of such time, the Commission anticipates amending the same section using the procedures set forth in 29 Del. C. §§ 10115-10118.

3. That, pursuant to 29 Del. C. § 10119(5), the Secretary shall provide notice of this amendment by forthwith forwarding a copy of this Order and the Combined Notice attached hereto as Exhibit "A" to the Registrar of Regulations for publication in the next issue of the Delaware Register of Regulations. In addition, the Secretary shall, by United States mail, deliver a copy of this Order and the Combined Notice attached hereto as Exhibit "A" to all persons or entities who previously participated in this docket.

4. That, pursuant to 29 Del. C. § 10119(4), the Commission will receive, consider, and respond to any petitions for reconsideration or revision of the amendment described in paragraph 1. Such petitions should be filed with the Commission on or before January 26, 1999.

5. That the Commission proposes to amend on a permanent basis its "Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" (adopted in PSC Order No. 4601 (Sept. 23, 1997)) by deleting the present Section 1.2 and substituting therefore a new Section 1.2 as set forth in paragraph 1 above. Pursuant to 29 Del. C. §§ 1133 & 10115, the Secretary shall forward the Combined Notice of this proposed amendment, (attached as Exhibit "A" hereto) to the Registrar of Regulations for publication in the Delaware Register of Regulations. In addition, the Secretary shall send, by United States mail, a copy of such Combined Notice to the Division of Public Advocate, the prior participants in this docket, and any other person who has made a written request for advance notice of the

Commission's regulation-making proceedings.

6. That the Secretary shall cause the Combined Notice attached hereto as Exhibit "A" to be published in the legal classified section, in two column format, outlined in black, in The News Journal and Delaware State News newspapers on the following dates:

Monday, January 4, 1999 (The News Journal)  
Tuesday, January 5, 1999 (Delaware State News)

The Secretary shall file proof of such publication prior to February 16, 1999.

7. That the Commission shall conduct a public hearing on the proposed amendment at the Commission's regularly scheduled meeting on February 16, 1999.

8. That the Commission reserves the jurisdiction and authority to enter such further Orders in this matter as may be deemed necessary or proper.

BY ORDER OF THE COMMISSION:

ATTEST:  
Secretary

**EXHIBIT "A"**

IN THE MATTER OF THE  
PROMULGATION OF RULES  
REGARDING THE DISCOUNTS  
FOR INTRASTATE  
TELECOMMUNICATIONS | PSC  
AND INFORMATION SERVICES | REGULATION  
PROVIDED TO SCHOOLS AND | DOCKET NO. 47  
LIBRARIES (OPENED JUNE 17, 1997) |

**COMBINED NOTICE OF EMERGENCY  
AMENDMENT AND PROPOSED AMENDMENT OF  
RULES PERTAINING TO INTRASTATE DISCOUNTS  
FOR TELECOMMUNICATIONS SERVICES AND  
OTHER ADVANCED SERVICES PROVIDED TO  
SCHOOLS AND LIBRARIES UNDER THE FEDERAL  
UNIVERSAL SERVICE SUPPORT PROGRAM**

TO: ALL DELAWARE SCHOOLS AND LIBRARIES,  
TELECOMMUNICATIONS CARRIERS,  
ADVANCED SERVICES PROVIDERS, AND  
OTHER INTERESTED PERSONS

Acting under the provisions of 47 U.S.C. § 254(c) & (h), the Federal Communications Commission ("FCC") established, in 1997, a federal universal support program for schools and libraries. Under the federal program, telecommunications services, Internet access, and internal

wiring are provided to eligible schools and libraries at varying discounts. In turn, telecommunication carriers and other providers are reimbursed for providing such discounted services with federal universal service support. See 47 C.F.R. §§ 54.500-54.519. Under the FCC's implementing rules, federal universal support is available for intrastate, as well as for interstate supported, services provided to schools and libraries if a state establishes discounts for intrastate services as deep as the interstate discounts established by the FCC for interstate services. 47 C.F.R. § 54.505(e)(1).

In PSC Order No. 4555 (July 15, 1997), the Public Service Commission ("the Commission") adopted a matrix of discounts to govern intrastate telecommunications services provided to eligible schools and libraries under the federal universal service program. The Commission adopted discounts equal to those available for interstate services so that carriers and other providers in Delaware would be eligible to receive federal support for both interstate and intrastate services provided to this State's schools and libraries. Thereafter, by PSC Order No. 4601 (Sept. 23, 1997), the Commission promulgated formal regulations to govern the intrastate discounts for telecommunications services provided to Delaware schools and libraries. In those regulations, the Commission re-affirmed the discount matrix previously adopted in PSC Order No. 4555. See "Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" ("S&L Rules").

**NOTICE OF EMERGENCY AMENDMENT**

Section 1.2 of the S&L Rules, as originally adopted, read:

1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until December 31, 1998. The Commission may hereafter alter, amend, or repeal these rules and may extend the expiration date for these rules.

On December 15, 1998, in PSC Order No. 4984, the Commission, acting pursuant to 29 Del. C. § 10119, amended Section 1.2 of the S&L Rules to read as follows:

1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and

libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

Such emergency amendment became effective on December 22, 1998 and is to remain effective for 120 days thereafter unless the Commission further extends the effective period. As explained in PSC Order No. 4984, the Commission undertook the emergency amendment in order to foreclose any contention that the S&L rules (and the intrastate discount matrix contained therein) would lapse on December 31, 1998. The Commission determined that continued use of the S&L Rules was necessary in order not to jeopardize present commitments of universal service support for services to Delaware schools and libraries, and in order not to impede Delaware schools and libraries from making applications for support for upcoming funding years.

Pursuant to 29 Del. C. § 10119(4), any person or entity may file a petition for reconsideration or revision of this emergency amendment. The Commission will consider and respond to each such petition. Twelve (12) copies of any such petition shall be filed with the Commission at the address set forth below on or before January 26, 1999.

#### **NOTICE OF PROPOSED AMENDMENT**

The Commission also proposes to permanently amend Section 1.2 of its S&L Rules to conform to the language in the emergency amendment set forth above. The proposed amendment will delete reference to an expiration date of December 31, 1998, and allow the S&L Rules to continue until further revised or repealed by the Commission. The Commission has the legal authority to promulgate these rules under the provisions of 47 U.S.C. § 254(h)(1)(B) and 26 Del. C. §§ 201 & 703(3). The proposed amendment to Section 1.2 will allow Delaware schools and libraries to continue to be eligible for federal universal service support for intrastate telecommunications services.

Persons may present their views on the proposed amendment by filing comments with the Commission on or before February 3, 1999. Twelve (12) copies of such comments should be submitted to the Commission at the following address:

Delaware Public Service Commission  
Attn: PSC Regulation Docket No. 47  
861 Silver Lake Boulevard  
Cannon Building, Suite 100  
Dover, Delaware 19904

Only persons who submit written comments, or who have previously participated in this docket, will receive notice of any further proceedings.

In addition, the Commission will conduct a public hearing on the proposed amendment during the course of its regularly scheduled meeting on February 16, 1999, beginning at 1:00 PM. Such hearing will be held at the Commission's office at the address located above. At such hearing, persons may submit their views orally and present relevant evidence. The record in this matter will also include the comments received and evidence presented.

The amendment is described above. Copies of the original S&L Rules, the emergency amendment, and the proposed permanent amendment, can be inspected and copied during normal business hours at the Commission's office at the address set out above. The fee for copies of the rules is \$0.25 per page.

Individuals with disabilities who wish to participate in these proceedings should contact the Commission to discuss any auxiliary aids or services needed to facilitate such review or participation. Such contact may be in person, by writing, telephonically, by use of the Telecommunications Relay Service, or otherwise. The Commission Staff is available to respond to questions concerning the above actions. The Commission's toll-free number is (800) 282-8574. Persons may also contact the Commission by either Text Telephone ("TT") or by regular telephone at (302) 739-4247.

**Symbol Key**

Roman type indicates the text existing prior to the regulation being promulgated. Underlined text indicates new text. Language which is ~~stricken~~ through indicates text being deleted.

**Proposed Regulations**

Under 29 **Del.C.** §10115 whenever an agency proposes to formulate, adopt, amend or repeal a regulation, it shall file notice and full text of such proposals, together with copies of the existing regulation being adopted, amended or repealed, with the Registrar for publication in the Register of Regulations pursuant to §1134 of this title. The notice shall describe the nature of the proceedings including a brief synopsis of the subject, substance, issues, possible terms of the agency action, a reference to the legal authority of the agency to act, and reference to any other regulations that may be impacted or affected by the proposal, and shall state the manner in which persons may present their views; if in writing, of the place to which and the final date by which such views may be submitted; or if at a public hearing, the date, time and place of the hearing. If a public hearing is to be held, such public hearing shall not be scheduled less than 20 days following publication of notice of the proposal in the Register of Regulations. If a public hearing will be held on the proposal, notice of the time, date, place and a summary of the nature of the proposal shall also be published in at least 2 Delaware newspapers of general circulation; The notice shall also be mailed to all persons who have made timely written requests of the agency for advance notice of its regulation-making proceedings.

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**DEPARTMENT OF  
ADMINISTRATIVE SERVICES  
DIVISION OF PROFESSIONAL REGULATION  
BOARD OF FUNERAL SERVICES**

Statutory Authority: 24 Delaware Code,  
Section 3105(a)(1) (24 **Del.C.** 3105(a)(1))

**PROPOSED RULES AND REGULATIONS OF THE  
DELAWARE BOARD OF FUNERAL SERVICES**

The Board of Funeral Services, pursuant to the authority of Title 24, Delaware Code, subsection 3105 (a)(1) proposes to revise the current Rules and Regulations to be consistent with House Bill 629.

A Public Hearing will be held on the proposed revisions to the Rules and Regulations on Wednesday, February 17, 1999, at 10:00 a.m. at the Cannon Building, 861 Silver Lake Boulevard, Public Service Commission Hearing Room, first floor, Dover De 19904. The Board will receive and consider input in writing from interested persons on the proposed revisions to the Rules and Regulations. Final date to submit written comments shall be at the above scheduled public hearing. Anyone wishing to obtain a copy of the proposed revisions or to make comments at the public hearing should notify Susan Miccio at the above address or by calling (302) 739-4522 Ext. 206. A copy of the proposed rules and regulations is also published in the Delaware Register of Regulations published January 1, 1999.

A revision of the Rules and Regulations governing the State Board of Funeral Services of the State of Delaware, adopted and promulgated this 20th day of May, 1998 at Dover, Delaware. These Rules and Regulations are hereby

adopted pursuant to 24 Del. C. Section 3105 (a)(1) and the Administrative Procedures Act, 29 Del. C. Section 10115. These regulations supersede and replace any previous adopted rules, regulations or bylaws by the State Board of Funeral Services.

**Duties of the Officers**

1. The President shall preside at all meetings, call meetings, sign certificates with other Board members or other forms that may be required by him or her by law.

2. In the absence of the President, the Secretary shall preside at the meetings and call meetings when the President is absent. However, the signatory duties of the President may not be transferred to the Secretary.

3. In accordance with 29 Del. C. Section 8807, the Division of Professional Regulation shall maintain and keep all records of licensed funeral directors in the State of Delaware issuing a number and date to each license.

4. The Division shall also cause to be collected all fees including license application fees, renewal fees or any other fee required to be filed for paid in accordance with the provisions of 24 Del. C. ch. 31, et seq.

5. In accordance with the Freedom of Information Act, 29 Del. C. Section 10004 (c) the Division of Professional Regulation shall publish an agenda of all meetings which shall include the time, dates and places of said meetings and an agenda. The Board shall also give public notice of the regular meetings and its intent to hold an executive session closed to the public at least seven days in advance. However, the agenda may be subject to change to include additional items not on the agenda including executive sessions closed to the public which arise at the time of the Board's meeting.

6. The Division of Professional Regulation shall insure

that accurate and detailed minutes of all business to come before the Board at all Board meetings be transcribed in accordance with 29 Del. C. Section 8807 and 24 Del. C. Section ~~3104~~ 3103 (d).

#### RULES AND REGULATIONS - LICENSURE REQUIREMENTS

##### Rule 1.0

Requirements for licensing of those applying for a Funeral Director's License in the State of Delaware. The qualifications of applicants for licensure as funeral director are contained in 24 Del. C. Section ~~{3106}~~ [3107] (a) ~~(1-5)(1)-(9)~~ and 24 Del. C. Section ~~3108~~ 3109.

##### Rule 1.2

A year of academic training shall consist of at least thirty (30) semester hours successfully completed by the applicant at an accredited college or university. Two years of academic training shall consist of at least sixty (60) semester hours successfully completed by the applicant at an accredited college or university. The applicant shall request that a copy of an official transcript be sent to the Board.

##### Rule 1.3

~~If an applicant has attended a school or college fully accredited by the American Board of Funeral Services Education or its successor, and has received a certificate of satisfactory completion in a one year program, the applicant shall be required to complete an additional (60) semester credit hours at an accredited college or university.~~

##### ~~Rule 1.4~~

An applicant who has attended a school or college fully accredited by the American Board of Funeral Service Education "ABFSE" or its successor and who, after attending such ABFSE accredited school or college, has received an Associate degree in Funeral Services, wherein such "degree" required the successful completion of at least sixty (60) semester credit hours, shall ~~in addition thereto to such ABFSE accredited Associate's Degree, receive and complete academic training at an accredited college or university and successfully completed at least thirty (30) additional semester credit hours to~~ be eligible for licensure as a funeral director in accordance with the educational requirements contained within 24 Del. C. Section 3106.

##### ~~Rule 1.4~~ Rule 1.5

In order for an applicant to apply for internship of one year's duration under the auspices of a licensed Delaware Funeral Services practitioner pursuant to 24 Del.C. Section ~~3106 (a)(3)~~ 3107(a)(4), the applicant shall have certified that he or she has graduated from an accredited high school or its equivalent, and completed at least two years of academic

~~training from an accredited college or university. In addition, the applicant shall certify that he or she has completed one year of academic training in funeral services from a school or college fully accredited by the American Board of Funeral Service Education or its successor.~~

##### ~~Rule 1.5~~ Rule 1.6

As required by 24 Del. C. Section 3107, the The Division, upon request of an eligible applicant, shall administer a State examination based solely upon the laws and regulations of Delaware ~~and other jurisdictions which impact on, relate to and govern its profession.~~ An applicant for full licensure whether via initial or reciprocal licensure; prior to applying for the Division's test based upon the law and regulations of Delaware ~~and other jurisdictions which impact on Delaware licensees~~ ("State" examination) shall first sit for and successfully complete the national examination required by 24 Del.C. Section 3105 (a)(3), the written examination prepared by a national professional organization recognized by the American Board of Funeral Services Education by a passing score determined by the organization preparing the test recognized by the American Board of Funeral Services Education. The national examination may be taken before or during the internship.

##### ~~Rule 1.6~~ Rule 1.7

As required by 24 Del. C. Section ~~3106 (a)(3)~~ 3107 (a)(4), an applicant other than one seeking licensure via reciprocity shall satisfactorily complete an internship of one year's duration in a licensed Delaware funeral establishment under the auspices of a licensed Delaware funeral service practitioner. An applicant must successfully complete the required total of ~~ninety (90)~~ sixty (60) semester hours of academic training ~~(as required by Rules 1.2 through 1.4)~~ prior to beginning the internship. An application to sit for the State examination ~~as required by 24 Del. C. Section 3107~~ shall be accompanied by a notarized statement from the Funeral Service Practitioner under whom the applicant "intern" as defined by 24 Del. C. Section ~~3103~~ 3101 (8) served his internship. The notarized statement shall attest that the applicant has concluded his/her internship and submitted to the Board satisfactory evidence of the completion of twenty-five (25) embalming reports and four (4) completed quarterly work reports.

##### ~~Rule 1.7~~ Rule 1.8

The State examination ~~required by 24 Del. C. Section 3107~~ shall consist of questions pertaining to the law and regulations of the State of Delaware ~~and other jurisdictions~~ and which may govern, impact on, and relate to the profession including preneed funeral services contracts, consumer protection law and regulations, and laws and regulations governing crematories and cemeteries. An applicant shall be deemed to have successfully passed the

“state examination” with a minimum grade of 70%.

#### Federal Trade Commission Regulations

##### Rule 2.0

A licensed funeral director in the State of Delaware shall comply with all Federal Trade Commission Regulations governing the pricing of funeral services and merchandise and the method of payment for funeral services as defined under 24 Del. C. Section 3101 ~~(4)(7)~~. Upon the issuance of a funeral director’s license, a licensed funeral director represents that he/she is familiar with all Federal Trade Commission rules and regulations and shall abide by the same. A licensee may be subject to discipline pursuant to 24 Del. C. Ch.31, et seq. if these rules or regulations have been violated by the licensee.

#### Establishment Permits

##### Rule 3.0

The requirements for the issuance, continuance, and proper maintenance of a funeral establishment permit are contained in 24 Del. C. Section 3121 ~~3117~~. In accordance with 24 Del. C. Section 3121 ~~(1)~~ 3117(a)(2) the funeral establishment shall be conducting funeral services from a building that is appropriate as defined in 24 Del. C. Section 3101(5). All establishments, both newly issued and those grandfathered by Section ~~3121(a)(2)~~ 3117(a)(1) shall in said building have preparation rooms which shall be locked. Licensed funeral directors shall exercise full control over preparation rooms and supplies.

##### Rule 3.1

All funeral establishments provided a permit in accordance with the requirements of 24 Del. C. Section 3121 ~~3117~~ shall, in addition to conforming with all safety requirements of the State Department of Health and Social Services, provide the following:

1.(a.) A room for the preparation and embalming of human remains;

1.(b.) Said preparation room shall contain embalming equipment and supplies.

##### Rule 3.2

Funeral Establishment Permit: Circumstances for termination and continuation.

The statutory requirements for the issuance of a funeral establishment permit are contained in 24 Del. C. Section 3121 ~~3117~~.

To be exempt from the provisions of 24 Del. C. Section 3121 ~~3117~~ (a)(2), the funeral establishment shall have been maintained, operated and conducted on a continuous basis prior to September 6, 1972 until the present date. Further, only the record owner of the funeral establishment shall be

entitled to obtain said exemption. No assignment of the exemption rights contained in 24 Del. C. Section 3121 (a)(2) is permitted and no other licensed funeral director may apply for or be assigned said rights.

##### Rule 3.3

If a licensed funeral director relocates or otherwise moves a funeral establishment that has been granted an exemption pursuant to the provision of 24 Del. C. Section 3121 ~~3117~~ (a)(2) from its original location, the exemption allowed under Section ~~3121~~ 3117 (a)(2) shall immediately become null and void. For purposes of this section the terms “move” or “relocate” is defined as to place such establishment outside the original building’s location at its exact address of record unless the building where the funeral establishment permit is contained is renovated.

#### Duplicate Certificate

##### Rule 4.0

Any licensed funeral director may obtain a duplicate funeral director’s certificate upon proof of satisfactory evidence to the Board that the original has been lost or destroyed and a payment of a fee as set by the Division of Professional Regulation.

#### Suspension, Revocation, or Lapse of Funeral Director’s License

##### Rule 5.0

During any period a licensed funeral director’s license has lapsed, been revoked or suspended by the Board in accordance with 24 Del. C. Section 3110 ~~3111~~ or Section ~~3115~~ 3114, no other licensed funeral director in the State of Delaware may register death certificates or secure burial permits for the licensee whose license has been revoked, suspended or has lapsed. Nor shall the licensee whose license has lapsed, been revoked or suspended by the Board, be able to register death certificates or secure burial permits. The Board may notify the Division of Public Health, the Department of Health and Social Services, the Medical Examiner’s Office or other appropriate state or federal agency that said funeral director is prohibited from practicing funeral services as defined by Chapter 31 of Title 24.

#### Cash Advance

##### Rule 6.0

A licensed funeral director in the State of Delaware is prohibited from billing or causing to be billed any item that is referred to as a “cash advance” item unless the net amount paid for such item is for funeral services in the same amount as is billed by the funeral director. A cash advance item is

payment made by the funeral director for the consumer to a third party including but not limited to cemetery fees, crematory fees, death certificates and florists.

(The effective date of these regulations is the 6th day of December, 1989 in accordance with 29 Del. C. Section 10118 (b).)

The following rules are adopted by the board as a supplement to the Rules and Regulations governing the State Board of Funeral Services, previously adopted and promulgated on the 6th day of December, 1989 pursuant to Del. C. Section 3105 (a)(1) and the Administrative Procedures Act, 29 Del. C. Section 10115.

## Code of Ethics

### Rule 7.0

The following is adopted as the code of ethics for all funeral service licensees in the State of Delaware.

1. As funeral directors, we herewith fully acknowledge our individual and collective obligation to the public, especially to those we serve, our mutual responsibilities for the proper welfare of the funeral services profession.

2. To the public we pledge; vigilant support of public health laws; proper legal regulations for the members of our profession; devotion to high moral and service standards; conduct befitting good citizens, honesty in all offerings of service and merchandise to the public and all business transactions.

3. To those we serve we pledge; confidential business and professional relationships; cooperation with the customs, laws, religions and creeds; observance of all respect due to the deceased; high standards of confidence and dignity in conduct of all services; truthful representation of all services and merchandise.

4. To our profession we pledge; support of high educational standards and proper licensing law; encouragement of scientific research; adherence to sound business practices; adoption of improved technique; observance of all the rules of fair competition and maintenance of favorable personnel relations.

### Effective Date:

The effective date of these regulations is the ~~11th~~ 20th day of ~~August~~ May 1998 in accordance with 29 Del. C. Section 10118 (b).

## Continuing Education Regulations

### Rule 8.0

#### 1. Board Authority

This rule is promulgated under the authority of 24 Del. C. Section 3105 which grants the Board of Funeral Services

(hereinafter "the Board") authority to provide for rules for continuing funeral services education as a prerequisite for license renewal.

#### 2. Requirements

1. Every licensed funeral director in active practice shall complete at least 10 hours/credits of approved continuing education (hereinafter "CE") during the two year licensure period prior to the time of license renewal. Licensees who earn more than the required amount of CE credit hours during a given licensure period may carry over no more than 50% of the total CE credit hours required for the next licensure period.

2. When a Delaware licensee on inactive status files a written application to return to active practice with the Board, the licensee shall submit proof of having completed the required CE credit hours for the period just prior to the request to return to active practice.

3. Upon application for renewal of a license, a funeral director licensee shall submit to the Board proof of completing the required number of CE credit hours.

#### 3. Waiver of the CE Requirement

1. The Board has the power to waive any part of the entire CE requirement for good cause if the licensee files a written request with the Board. For example, exemptions to the CE requirement may be granted due to health or military service. Application for exemption shall be made in writing to the Board by the applicant for renewal. The Board shall decide the merits of each individual case at a regularly scheduled meeting.

#### 2. Other exemptions include the following:

a. Newly licensed funeral directors, including those newly licensed by reciprocity, are exempt during the time from initial licensure until the commencement of the first full licensure period.

#### 4. Continuing Education Program Approval

1. Each contact hour (at least fifty minutes) is equivalent to 1.0 CE credit hour. One college credit hour is equivalent to 5 CE credit hours.

2. Eligible program providers or sponsors include but are not limited to, educational institutions, government agencies, professional or trade associations and foundations and private firms.

Sources of CE credits include but are not limited to the following:

- a. Programs sponsored by national funeral service organizations.
- b. Programs sponsored by state associations.
- c. Program provided by local associations.
- d. Programs provided by suppliers.
- e. Independent study courses for which there is an assessment of knowledge.
- f. College courses.

3. The recommended areas include but are not limited to the following:

- a. Grief counseling
- b. Professional conduct, business ethics or legal aspects relating to practice in the profession.
- c. Business management concepts relating to delivery of goods and services.
- d. Technical aspects of the profession.
- e. Public relations.
- f. After care counseling.

4. Application for CE program approval shall include the following:

- a. Date and location.
- b. Description of program subject, material and content.
- c. Program schedule to time segments in subject content areas for which approval of, and determination of credit is required.
- d. Name of instructor(s), background, expertise.
- e. Name and position of person making request for program approval.

5. Requests for CE program approval shall be submitted to the Board on the application provided by the Board. Application for approval may be made after the program; however, if the program is not approved, the applicant will be notified and no credit given.

6. Approval of CE credits and program formats by the Committee shall be valid for a period of two years from the date of approval. Changes in any aspect of the approved program shall render the approval invalid and the presenter will be responsible for making reapplication to the Committee.

7. Upon request, the Board shall mail a current list of all previously approved programs.

6. Certification of Continuing Education - Verification and Reporting

1. The program provider/sponsor has sole responsibility for the accurate monitoring of program attendance. Certificates of attendance shall be supplied by the program provider/sponsor and be distributed only at the completion of the program.

2. Verification of completion of a independent study program will be made with a student transcript.

3. The funeral director licensee shall maintain all original certificates of attendance for CE programs for the entire licensure period. Proof shall consist of completed CE form provided by the Board and shall be filed with the Board on or before thirty (30) days prior to the expiration date of the biennial renewal period.

4. Applications for renewal may be audited by the Board to determine whether or not the recommended requirements of continuing education have been met by the licensee.

5. If a licensee is found to be non-compliant in continuing education, the licensee's license shall lapse at the

expiration of the present licensing period. The Board shall reinstate such license within twelve (12) months of such lapse upon presentation of satisfactory evidence of successful completion of continuing education requirements and upon payment of all fees due.

6. Programs approved for continuing education credit by another state funeral board other than Delaware shall be automatically approved for all Delaware licensees upon written application and verification of CE credits by the applicable state board.

7. Continuing Education Committee

1. The Board of Funeral Services shall appoint a committee known as the Continuing Education Committee. The Committee shall consist of the following who shall elect a chairperson:

- a. One (1) Board member (non-licensed).
- b. One (1) non-Board member who shall be a licensed funeral director who is owner/operator of a funeral establishment.
- c. One (1) non-Board member who shall be a licensed funeral director who does not own or operate a funeral establishment.

2. Membership on this Committee shall be on a rotating basis, with each member serving a three year term and may be eligible for reappointment. The Committee members shall continue to serve until a new member is appointed.

3. The Continuing Education Committee shall oversee matters pertaining to continuing education and make recommendations to the Board with regard to approval of submitted programs for CE by licensees and with regard to the Board's review of audited licensees. The Board shall have final approval on all matters.

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**DEPARTMENT OF  
ADMINISTRATIVE SERVICES  
DIVISION OF PROFESSIONAL REGULATION  
BOARD OF PLUMBING EXAMINERS**  
Statutory Authority: 24 Delaware Code  
Section 1805(2) (24 Del.C. 1805(2))

DELAWARE BOARD OF PLUMBING EXAMINERS

PLEASE TAKE NOTICE, pursuant to 29 Del.C. Chapter 101 and 24 Del.C. Section 1805(2), the Delaware Board of Plumbing Examiners has developed and proposes to adopt comprehensive Rules and Regulations. The regulations will describe the Board's organization, operations and rules of procedure, the process and requirements for licensure and certain standards of conduct applicable to licensed plumbers.

A public hearing will be held on the proposed Rules and

Regulations on Tuesday, February 2, 1999 at 9:00 a.m. in the Second Floor Conference Room A of the Cannon Building, 861 Silver Lake Boulevard, Dover, Delaware 19904. The Board will receive and consider input in writing from any person on the proposed Rules and Regulations. Any written comments should be subri-fitted to the Board in care of Rosey Vanderhoogt at the above address.. Final date to submit written comments shall be at the above scheduled public hearing. Anyone wishing to obtain a copy of the proposed Rules and Regulations or to make comments at the public hearing should contact Rosey Vanderhoogt at the above address or by calling (302) 739-4522 extension 203.

This notice will be published in two newspapers of general circulation not less than twenty (20) days prior to the date of the hearing.

Proposed Rules and Regulations  
Delaware Board of Plumbing Examiners

Section 1. General Provisions.

1.1 Legislative authority. These Rules and Regulations are adopted by the Delaware Board of Plumbing Examiners (hereinafter "the Board") by authority of Title 24 of the Delaware Code, Chapter 18, and the Administrative Procedures Act, Title 29 of the Delaware Code, Chapter IO 1, subchapter IL

1.2 Applicability. These Rules and Regulations shall govern proceedings before the Board to the extent they are consistent with governing law and except that the Board may waive application of particular Rules and Regulations where the Board concludes, on the vote of a majority of a quorum of the Board, that application of the Rules and Regulations would result in substantial, manifest injustice. Statutory reference: 29 Del. C. §101 11 (2); 24 Del. C §1805(2).

1.3 Officers. The Board will conduct election of officers for the offices of Chairperson, Vice-Chairperson and Secretary in May of each year. In the event of a resignation, termination or departure of one of the officers, a replacement shall be elected at the next Board meeting or at a meeting called for that purpose. Statutory reference: 24 Del. C §1804(a).

1.4 Meetings. The Board shall, meet as often as necessary to transact the regular business of the Board and in any event, shall meet at least once each calendar quarter. Statutory reference: 24 Del. C §1804(b).

1.5 Contact person. Information about the Board and its practices can be obtained by contacting the Division of Professional Regulation, Cannon Building, 861 Silver Lake Blvd., Ste. 203, Dover, Delaware 19904-2467, telephone 302-739- 4522. Statutory reference: 29 Del. C §,10111(1).

Section 2. Practice and Procedure.

2.1 Open meetings. All meetings of the Board will be conducted in compliance with the Freedom of Information Act, 29 Del. C. Chapter 100. Statutory reference: 24 Del. C. §1812.

2.2 Disciplinary hearings. The procedural miles for disciplinary proceedings before the Board are outlined in Section 6. Statutory reference: 29 Del. C. §10111(2).

2.3 Advisory and subcommittees. The Board may appoint such advisory and subcommittees from time to time to assist in the performance of its duties as the Board deems necessary. Statutory reference.- 29 Del. C §10111(1).

Section 3. Pre-examination Requirements for Licensure.

3.1 Definitions. The following definitions shall apply for purposes of this section:

3.1 (a) Performed plumbing services" means practical, hands-on experience working with tools in the installation, maintenance, extension, alteration, repair and removal of all piping, plumbing fixtures, plumbing appliances and plumbing apparatus. It does not include time spent in supervising, engineering, estimating and other managerial tasks, nor time spent in working with an entity authorized to perform plumbing services, but on menial tasks or on tasks which do not constitute the practice of plumbing, such as sewer cleaning. statutory reference: 24 Del. C. §1806(a).

3.1 (b) "Supervision" means plumbing services performed while employed by a licensed plumber, or by the same firm, partnership, corporation, or owners of the company as the licensed plumber, and performed under that plumber's license. Statutory reference: 24 Del. C. §1806(a).

3.2 Pre-examination requirements. In order to sit for the examination, an applicant must complete and return an application form to the Board's office, showing that the applicant has completed either the Journeyman's program or the Apprenticeship program, as follows:

3.2 (a) Journeyman's program. The applicant must have received a Joumeyman's certificate issued by a plumbing apprenticeship program which at least meets the Federal Bureau of Apprenticeship and Training Standards and have performed plumbing services for at least two (2) years under the supervision of a licensed plumber after obtaining the Journeyman's Certificate.

3.2 (b) Apprenticeship program. The applicant must have completed a state-approved series of tests offered by Delaware apprenticeship schools and have performed plumbing services for at least seven (7) years under the supervision of a licensed plumber. Except upon a showing of exceptional hardship, the ap plicant's seven (7) years of supervised experience must have been completed within fifteen (15) years of his or her application for licensure. Statutory reference: 24 Del. C §1806(a).

3.3 Supporting documentation. The application must be accompanied by the necessary fees and proof of completion of either the Journeyman's course or the Apprenticeship course, in the form of scaled or conformed copies of the Journeyman's Certificate or a certified transcript or other reliable documents evidencing successful completion of the apprenticeship tests and employer(s) affidavit(s) verifying the required supervised experience. statutory reference: 24 DeL C §1806(b).

3.4 Disciplinary record. An applicant must also certify to the Board that he or she has not engaged in any of the acts that would be grounds for discipline of a licensee of the State of Delaware and that he or she does not have any disciplinary proceedings or unresolved complaints pending against him or her in any jurisdiction where he or she has previously been or currently is licensed, or certified as a plumber. An applicant currently or previously licensed or certified in another jurisdiction shall provide the Board with certified statements from all other such jurisdictions verifying their disciplinary and complaint records. Statutory reference: 24 Del. C. 41806(c).

3.5 Complete application. An application to sit for the examination is not considered complete until the Division of Professional Regulation has received the application form, aft

supporting documents (including verifications of disciplinary record) and all fees required by this section. statutory reference: 24 Del.C. §1806(b).

#### Section 4. Examination and Licensure.

4.1 Applications. A person wishing to be licensed as a plumber shall complete the application form designated by the Board and submit it to the Division of Professional Regulation along with any required supporting documents and the appropriate fees. Statutory reference: 24 Del. C. §1806(b).

4.2 Examination. The Board designates the NAI-BLOCK Plumbing Examination as the required examination for licensure in Delaware. The examination will be offered four (4) times per year. No person shall be permitted to sit for the examination until they have completed the Pre-examination Requirements of Section 3 and received the Board's approval to take the examination. An applicant shall take the examination within two (2) regularly scheduled examination periods of receiving the Board's approval to sit for examination. Applicants who do not take the examination within two (2) regularly scheduled examination periods must reapply to the Board for licensure. statutory reference: 24 Del. C §1805(3), (4).

4.3 Passing Score The passing score on the examination shall be 70 %. statutory reference: 24 Del. C. §1805(3).

4.4 Reexamination. Applicants who do not earn a passing score on the examination may retake the examination two additional times, at its next regularly scheduled administrations, without Board approval. An applicant who does not earn a passing score after taking the examination a total of three (3) times is not eligible for licensure until one (1) year has passed from the date he or she last took the examination. Such an applicant must reapply to the Board for licensure. Statutory reference: 24 Del. C §1805(4).

4.5 Licensure. A plumbing license shall be issued to each applicant who achieves a passing score on the examination, meets the education, experience and disciplinary record requirements of 24 Del. C §1806 and Section 3 of these Rules and Regulations and pays the appropriate fees for licensure. statutory reference: 24 Del. C. §1805(6).

#### Section 5 Licensure by Reciprocity.

5.1 Applicability. This Section shall apply to any applicant seeking licensure through reciprocity from his or her current licensure in another State. Statutory reference: 24 Del. C §1807.

5.2 Applications. A person wishing to be licensed as a plumber through reciprocity shall complete the application form designated by the Board and submit it to the Division of Professional Regulation along with any required supporting documents and the appropriate fees. An application for licensure by reciprocity is not considered complete until the Division of Professional Regulation has received the application form, all supporting documents and all fees required by this section. Statutory reference: 24 Del. C §1807.

5.3 Disciplinary record. An applicant under this Section must certify to the Board that he or she has not engaged in any of the acts that would be grounds for discipline of a licensee of this State and that he or she does not have any disciplinary proceedings or unresolved complaints pending against him or her in any state or jurisdiction where he or she has previously been or currently is licensed or certified as a plumber. An applicant currently or

previously licensed or certified in another state or jurisdiction shall provide the Board with certified statements from each of those states and jurisdictions verifying their disciplinary and complaint records and confirming that the applicant is currently licensed in the State through which he or she seeks reciprocity. Statutory reference: 24 Del. C §1807.

5.4 Equivalency. An applicant under this Section must demonstrate that the standards for licensure of the State through which the applicant seeks reciprocity are the same as those under 24 Del. C § 1 806 and Sections 3 and 4 of these Rules and Regulations. Specifically, the law of the other State must require:

(a) a passing score on an examination prepared by a recognized testing service; and

(b) education or experience, or a combination of education and experience, at least equal to that required by Section 3.2. Statutory reference: 24 Del. C §1807.

5.5 Reciprocity licensure. A plumbing license shall be issued to each reciprocity applicant who meets the requirements of 24 Del. C. §1807 and this Section, and pays the appropriate fees for licensure. Statutory reference: 24 Del. C. §1805(6).

#### Section 6 Disciplinary Proceedings.

6.1 Hearing Procedures. All disciplinary hearings will be conducted in accordance with the Administrative Procedures Act, 29 Del. C. chapter 101. Statutory reference: 24 Del. C. §1805(8).

6.2 Continuances. Requests for a continuance of a scheduled disciplinary proceeding shall be submitted to the Board in writing at least five (5) days before the date of the hearing. Requests submitted less than five (5) days before the date of the hearing will be granted only on a showing of unforeseeable emergency. Except on a showing of exceptional circumstances, no party shall be allowed more than one (1) continuance of any proceeding scheduled before the Board. Statutory reference: 29 Del. C §10111(2).

6.3 Consent Agreements. Parties to a disciplinary proceeding shall be excused from attending the scheduled hearing provided that they are not otherwise under subpoena and provided that a complete, fully executed consent agreement or like document is submitted to the Board at least five (5) days before the date of the hearing. In the event that the Board does not approve the consent agreement, the parties shall be notified and the matter rescheduled for hearing. Statutory reference: 29 Del. C. §10111(2).

6.4 Standards of Conduct. Examples of illegal, incompetent or negligent conduct shall include, but are not limited to, the following:

a. Violating any provision of the State Plumbing Code as adopted by the Department of Health and Social Services, including, but in no way limited to, providing plumbing services without a permit where a permit is required.

b. Performing plumbing services outside the scope of the licensee's expertise.

c. Falsifying records and other acts of consumer fraud.

d. Physically abusing or assaulting customers or theft or willful destruction of a customer's property.

e. Improper or inadequate supervision of Journeymen or Apprentices.

f. Using alcohol or illegal drugs on the job.

g. Allowing another to use your license.

h. Knowingly helping another to violate or avoid the

applicable licensing laws or State Plumbing Code.

i. Failing to report unprofessional or negligent conduct of other licenses which seriously impairs their ability to safely perform plumbing services or poses a substantial threat of harm to the public. Statutory reference: 24 Del. C §1810(a)(2).

## DEPARTMENT OF AGRICULTURE

### HARNESS RACING COMMISSION

Statutory Authority: 3 Delaware Code,  
Section 10027 (3 Del.C. 10027)

The public may obtain copies of the proposed regulations from the commissioner's Office, 2320 S. DuPont Highway, Dover, DE 19901, phone (302) 739-4811. The Commission will accept written public comments from January 1, 1999 to January 30, 1999.

#### Proposed Amendments to Harness Racing Commission Rules

1. Amend chapter III, rule I-G to now provide as follows:

#### G. Appointment

1. A person shall not be appointed to more than one racing official position at a meeting unless specifically approved by the Commission. No person shall be appointed to or hold any such office or position who holds any official relation to any person, association, or corporation engaged in or conducting harness racing within this State. No Commissioner, racing official, steward, or judge whose duty is to insure that the rules and regulations of the Commission are complied with shall bet on the outcome of any race regulated by the Commission or have any financial or pecuniary interest in the outcome of any race regulated by the Commission. All employees appointed under 3 Del.C. section 10007 (a-c) shall serve at the pleasure of the Commission and are to be paid a reasonable compensation.

2. The Commission shall appoint or approve the State Steward and judges at each harness race meeting. The Commission may appoint such officials on an annual basis. In addition to any minimum qualifications promulgated by the Commission, all applicants for the position of Steward must be certified by a national organization approved by the Commission. An applicant for the position of steward or race judge must also have been previously employed as a steward, patrol judge, clerk of scales or other racing official at a harness racing meeting for a period of not less than forty-five days during three of the last five years, or have at least five years of experience as a licensed driver who has also served not less than one year as a licensed racing official at a harness racing meeting or have ten years of experience as a licensed harness racing trainer who has served not less than one year as a licensed racing official at a harness racing

meeting.

3. The Commission may appoint such officers, clerks, stenographers, inspectors, racing officials, veterinarians, and such other employees as it deems necessary, consistent with the purposes of 3 Del.C. chapter 100.

2. Amend chapter VI, rule II-A-5 to now provide as follows:

#### II. Overnight Events

##### A. General Provisions

5. Regularly scheduled races or substitute races may be divided where necessary to fill a program of racing, or may be divided and carried over to a subsequent racing program, subject to the following:

a) No such divisions shall be used in the place of regularly scheduled races which fill.

b) Where races are divided in order to fill a program, starters for each division must be determined by lot after preference has been applied, unless the conditions provide for divisions based upon age, performance, earnings or sex may be determined by the racing secretary.

c) However, where necessary to fill a card, not more than three ~~one~~ races per day may be divided into not more than two divisions after preference has been applied. The divisions may be selected by the racing secretary. For all other overnight races that are divided, the division must be lot unless the conditions provide for a division based on performance, earnings or sex.

3. Amend chapter VII, rule I-(F) to now provide as follows:

#### F. Preference Dates

Preference dates shall be given to horses in all overnight events at extended pari-mutuel tracks in accordance with the following:

1. The date of the horse's last previous start in a purse race ~~during the current year~~ is its preference date with the following exceptions:

a) The preference date on a horse that has drawn to race and has been scratched is the date of the race from which scratched.

b) When a horse is racing for the first time ~~after February 1 in the current year~~ ever, the date of its last qualifying race ~~the first declaration into a purse race~~ shall be considered its preference date.

c) Wherever horses have equal preference in a race, the actual preference of said horses in relation to one another shall be determined by lot.

4. Amend chapter IV, rule III-M to add a new rule to now provide as follows:

**III. FACILITIES AND EQUIPMENT****M. Weather Equipment**

1. An association shall provide a consistent method whether by instrumentation or otherwise to obtain an appropriate means for measuring temperature. The Presiding Judge shall consult at least one member of the driver's committee by the third race to determine an allowance. The following guidelines shall be used in making this determination:

Temperature or Winchill:32 degrees - 25 degrees (F) = 1 second allowance24 degrees - 15 degrees (F) = 2 second allowance14 degrees - 0 degrees (F) = 3 second allowance

Other relevant factors such as precipitation shall also be considered.

5. Amend chapter VI, rule III-c-(15) to now provide as follows:

15. A claimed horse shall not be eligible to start in any race in the name or interest of the owner of the horse at the time of entry for the race from which the horse was claimed for thirty (30) days, unless reclaimed out of another claiming race. Nor shall such horse remain in or be returned to the same stable or care or management of the first owner or out of another claiming race. Further, such horse shall be required to continue to race at the track where claimed for a period of 45 days or the balance of the current racing meet, whichever comes first, unless released by the Racing Secretary.

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**THOROUGHBRED RACING COMMISSION**

Statutory Authority: 3 Delaware Code,  
Section 10103 (3 Del.C. 10103)

The public may obtain copies of the proposed regulations from the Commissions Office, 2320 S. DuPont Highway, Dover, DE 19901, phone - (302) 739-4811. The Commission will accept written comments from January 1, 1999 to January 30, 1999 which can be submitted to the Commission office at 11:00 a.m. at the office of the Department of Agriculture, 2320 S. DuPont Highway, Dover, DE.

1. AMEND Rule 4.01 to now provide as follows:

**4.01 Racing Officials**

The Commission may appoint such officers, clerks, stenographers, inspectors, racing officials, veterinarians, and such other employees as it deems necessary, consistent with

the purposes of this chapter. The Commission for the purpose of maintaining the integrity and honesty in racing shall prescribe by administrative regulation the powers and duties of the persons employed under this section and qualifications necessary to perform those duties.

Persons appointed by the Licensee to serve as Racing Officials during a race meeting must first be approved by the Commission, shall serve only so long as approved by the Commission, and shall be under the supervision of the Stewards. For purposes of these Rules, Racing Officials shall include those persons serving as Steward, Racing Secretary, Assistant Racing Secretary, Clerk of the Scales, Paddock Judge, Starter, Patrol Judge, Placing Judge, Timer, Identifier and Veterinarian.

(a) No person while serving as a Racing Official shall, directly or indirectly, own a beneficial interest in a Thoroughbred, or Jockey contract, or Licensee under his supervision; nor shall he cause to be sold, for himself or another, any Thoroughbred under his supervision; nor shall he wager on any race under his supervision; nor shall he write or solicit horse insurance or have any monetary interest in any business which seeks the patronage of horsemen or racing associates as such. For the purposes of the above, the following, employees shall also be deemed Racing Officials: Assistant Starter, Jockey Room Custodian, Jockey Room Employees, Valets, Outriders.

No person shall be appointed to or hold any such office or position who holds any official relation to any person, association, or corporation engaged in or conducting thoroughbred racing within this state. No Commissioner, racing official, steward or judge whose duty it is to insure that the rules and regulations of the commission are complied with shall bet on the outcome of any race regulated by the Commission. All persons appointed under 3 Del.C. section 10107 (a-c) shall serve at the pleasure of the commission and are to be paid a reasonable compensation.

(b) Racing Officials serving in the capacity of Stewards, Placing and/or Patrol Judges, Clerk of Scales, Starter and Horse Identifier shall have good vision and an ability to distinguish colors correctly.

(c) Any Racing Official who desires to leave his employment during the race meeting must first obtain permission from the Commission; in the event a vacancy occurs among Racing Officials other than Stewards, the Licensee shall promptly appoint a successor, subject to approval of the Commission, in the event the Licensee does not appoint a successor in time to permit the conduct of racing, then the Stewards shall immediately a temporary successor.

2. Repeal existing Rule 3.01(a) and replace with new Rule 3.01(a) to now provide as follows:

3.01 Qualifications for Stewards.

No person shall qualify for appointment or approval as a Steward unless:

(a) In addition to any minimum qualifications promulgated by the Commission, all applicants for the position of Steward must be certified by a national organization approved by the Commission. An applicant for the position of steward must also have been previously employed as a steward, patrol judge, clerk of scales or other racing official at a thoroughbred racing meeting for a period of not less than forty-five days during three of the last five years, or have at least five years of experience as a licensed jockey who has not less than one year as a licensed racing official at a thoroughbred racing meeting or have ten years of experience as a licensed thoroughbred trainer who has served not less than one year as a licensed racing official at a thoroughbred racing meeting.

3. Amend Rules by enacting a new Rule 4.09 to now provide as follows:

#### 4.09 Investigator

The Commission may appoint a racing inspector or investigator for each thoroughbred racing meet. Such racing inspector shall perform all duties prescribed by the Commission consistent with the purposes of Title 3, Chapter 101. Such racing inspector shall have full and free access to the books, Records and papers pertaining to the pari-mutuel system of wagering and to the enclosure or space where the pari-mutuel system is conducted at any thoroughbred racing meeting to which he shall be assigned for the purposes of ascertaining whether the holder of such permit is operating in compliance with the Commission's rules and regulations. The racing inspector shall investigate whether such rules and regulations promulgated by the Commission are being violated at such Thoroughbred racetrack or enclosure by any licensee, patron, or other person. Upon discovering any such violations, the racing inspector shall immediately report his or her findings in writing and under oath to the commission or its designee as it may deem fitting and proper. The racing inspector shall devote his full time to the duties of his office and shall not hold any other position or employment, except for performance of similar duties for the Harness Racing Commission.

4. Amend the Rules by enacting a new Rule 4.10 to provide as follows:

#### 4.10 Administrator of Racing

The Commission may employ an Administrator of Racing who shall perform all duties prescribed by the Commission consistent with the purposes of this chapter. The Administrator of Racing shall devote his full time to the duties of office and shall not hold any other office or employment, except that he can perform the same duties as

Administrator of Racing for the Harness Racing Commission. The Administrator of Racing shall be the representative for the Commission at all meetings of the Commission and shall keep a complete record of its proceedings and preserve, at its general office, all books, maps, documents, and papers entrusted to its care. He shall be the executive office of the Commission and shall be responsible for keeping all Commission records and carrying out the rules and orders of the Commission. The Commission may appoint the Administrator of Racing to act as a hearing officer to hear appeals from administrative decisions of the steward of racing judges.

5. Amend Rule 21.01 to now provide as follows:

#### 21.01 Statement of Purpose

The rules in this part establish and describe requirements, criteria, standards and procedures designed to monitor, test for ultimately control the use of alcohol and drugs by persons within the jurisdiction of the Delaware Thoroughbred Racing Commission. The purpose of these rules is to eliminate, substance and thereby enhance the safety, integrity and decorum of horse racing within the State of Delaware. The Commission shall promulgate administrative regulations for effectively preventing the use of improper devices, the administration of drugs or stimulants or other improper acts for the purpose of affecting the speed or health of horses in races in which they are to participate. The Commission is also authorized to promulgate administrative regulations for the legal drug testing of licensees. The Commission is authorized to contract for the maintenance and operation of a testing laboratory and related facilities, for the purpose of saliva, urine, or other tests for enforcement of the Commission's drug testing rules and regulations. The licensed persons or associations conducting thoroughbred racing shall reimburse the Commission for all costs of the drug testing programs established pursuant to this section. Increases in costs of the aforementioned testing program shall be reasonable and related to the expansion in the number of days of racing and the number of races held, the need to maintain competitive salaries and inflation. The Commission may not unreasonably expand the drug testing program beyond the scope of the program in effect as of June 30, 1998. Any decision by the Commission to expand the scope of the drug testing program that occurs after an administrative hearing, at which the persons or associations licensed under 3 Del.C. 10121 consent to such expansion, shall not be deemed unreasonable expansion for purposes of this section. The Commission, in addition to the penalties contained in 3 Del.C. 10125, may impose penalties on licensees who violate the drug testing regulations including imposition of fines or assessments for drug testing costs.

6. Amend Rule 13.04 to now provide as follows:

#### 13.04 Limits on Claims

No person shall claim more than one horse from any one race. No authorized agent, representing several owners, shall submit more than one claim for any race. When a stable consists of horses owned by more than one person, trained by the same Trainer, not more than once claim may be entered on behalf of such stable in one race. An owner who races in a partnership may claim his or her individual interest in the individual has started a horse in the partnership. The individual must also have an account with the horseman's bookkeeper that is separate from the partnership account.

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## **DEPARTMENT OF EDUCATION**

Statutory Authority: 14 Delaware Code,  
Section 122(d) (14 **Del.C.** 122(d))

EDUCATIONAL IMPACT ANALYSIS PURSUANT TO  
14 DEL. C., SECTION 122(d)

### **OPTIONS FOR AWARDING CREDIT TOWARD HIGH SCHOOL GRADUATION**

#### A. TYPE OF REGULATORY ACTION REQUESTED

Amendment to Existing Regulations

#### B. SYNOPSIS OF SUBJECT MATTER OF REGULATION

The Secretary seeks the consent of the State Board of Education to amend six regulations by combining them into one regulation entitled Options For Awarding Credit Toward High School Graduation. The existing regulations are found on pages D-6 to D-12 in the Handbook for K-12 Education. They include C., 1-3, Early College Admission, D., 1 and 2, Make-up Work or Nontraditional Study, E., 1 and 2, Make-up Work Because of Failure, H., 1 and 2, Correspondence Schools, I., 1-5, Tutoring, and J., 1., a-c, Additional Options for High School Graduation. Sections F and G were amended previously as the regulations for the James H. Groves High School.

The focus of the amended regulation is drawn from existing regulation J, Additional Options for High School Graduation and adds correspondence courses, distance learning courses, and tutoring to the list of options. The amended regulation clearly states that a student must have the school board or its designee's pre-approval of the option(s) and that the option(s) must meet the state content standards. The amended regulation eliminates repetitious

language of a technical assistance nature, the formula for equating college and high school credits and the equating of a correspondence school diploma with a Delaware high school diploma through an endorsement by the Department of Education.

#### C. IMPACT CRITERIA

1. Will the amended regulation help improve student achievement as measured against state achievement standards?

The amended regulation addresses options for generating credit toward high school graduation, not student achievement issues.

2. Will the amended regulation help ensure that all students receive an equitable education?

The amended regulation addresses options for generating credit toward high school graduation, not equity issues.

3. Will the amended regulation help to ensure that all students' health and safety are adequately protected?

The amended regulation addresses options for generating credit toward high school graduation, not health and safety issues.

4. Will the amended regulation help to ensure that all students' legal rights are respected?

The amended regulation addresses options for generating credit toward high school graduation, not legal rights issues.

5. Will the amended regulation preserve the necessary authority and flexibility of decision makers at the local board and school level?

The amended regulation will preserve and increase the necessary authority and flexibility of decision makers at the local board and school level.

6. Will the amended regulation place unnecessary reporting or administrative requirements or mandates upon decision makers at the local board and school levels?

The amended regulation will not place any unnecessary reporting or administrative requirements or mandates upon decision makers at the local board and school level.

7. Will decision making authority and accountability for addressing the subject to be regulated be placed in the same entity?

The decision making and accountability will remain in the same entity.

8. Will the amended regulation be consistent with and not an impediment to the implementation of other state educational policies, in particular to state educational policies addressing achievement in the core academic subjects of mathematics, science, language arts and social

studies?

The amended regulation will not be an impediment to the implementation of other state educational policies.

9. Is there a less burdensome method for addressing the purpose of the regulation?

The amended regulation has reduced six separate regulations into one and focused the intent which has limited the burden to the district.

10. What is the cost to the state and to the local school boards of compliance with the amended regulation?

There is no added cost to the state or to the local school district for complying with the amended regulation.

#### FROM HANDBOOK FOR K-12 EDUCATION

##### ~~C. EARLY COLLEGE ADMISSION~~

~~1. The following criteria shall serve as guidelines for early college admission. Students must have:~~

~~a. a written request from parent(s) or guardian(s) during the student's junior year following a conference with school officials;~~

~~b. written recommendations from teachers;~~

~~c. a grade point average of 90 or better;~~

~~d. class standing among the top 10 percent of their class;~~

~~e. an accumulation of at least 15 units of credit toward graduation;~~

~~f. a letter of acceptance from the appropriate college, university or post secondary institution.~~

~~2. The remaining required units of credit needed for graduation must be taken in the appropriate subject matter area. One Carnegie unit of credit is equal to six semester hours credit or nine quarter hours of college credit.~~

~~3. Units of credit accumulated at the college level shall be applied toward the units of credit for a high school diploma. The diploma will be forwarded to the student at the time members of the class would graduate or in accordance with the acceptable provisions of the alternative educational programs.~~

##### ~~D. MAKE UP WORK OR NON-TRADITIONAL STUDY~~

~~1. In situations where a pupil is unable to complete the programs of study or drops out of school before graduation and later wishes to fulfill requirements for graduation, the following are means to make up work:~~

~~a. recognized and approved correspondence school;~~

~~b. approved summer school;~~

~~c. approved evening school;~~

~~d. another regular high school;~~

~~e. United States Armed Forces Institute~~

~~courses taken as a member of the military service; and~~

~~f. approved tutoring program.~~

~~2. In a situation where a pupil is returning to school from an agency that is external to the public school system and provides educational services to students, the following comprise means for awarding units of credit and/or placing students:~~

~~a. The agency will provide the school with a program description or other appropriate information that is descriptive of the content of the program provided the student.~~

~~b. In the absence of descriptive materials, the agency will use the state content standards to document student proficiency in each course.~~

~~c. The agency will provide grades or other indicators of performance for the work accomplished by the student.~~

~~d. The agency will provide the school the results of performance on standardized tests or any other educationally relevant data.~~

~~e. The agency will document the number of clock hours of instruction the student has received in each program.~~

~~f. The awarding of units of credit or the educational placement of the student will be determined by the receiving school based upon the information provided by the agency and other appropriate standards defined by the district.~~

##### ~~E. MAKE UP WORK BECAUSE OF FAILURE~~

~~1. If a student fails a course, that course may be made up through:~~

~~a. a recognized correspondence school;~~

~~b. an approved summer school;~~

~~c. an approved evening school;~~

~~d. enrollment in the same course in the following school term; or~~

~~e. an approved tutoring program.~~

~~2. The recommendations and restrictions concerning make up work shall apply in this instance as defined in the preceding section (D. 1. & 2.).~~

##### ~~H. CORRESPONDENCE COURSES~~

###### ~~1. APPROVAL~~

~~a. When correspondence school programs are used for completing graduation requirements from a Delaware high school, these programs must have prior approval, in writing, by the principal and must duplicate or be considered equivalent to the program requirements in the regular high school.~~

~~b. All correspondence, United States Air Force Institute, or summer school make up programs must have~~

the prior approval of the principal in the high school where the diploma is to be issued.

e. It is recommended that each school considering such transfer courses for credit toward graduation reserve the right to require a subject content examination or other indicator of competency.

## 2. ENDORSEMENT OF CORRESPONDENCE SCHOOL DIPLOMA

a. Endorsement of a correspondence school diploma by the State Department of Public Instruction will be based upon the fact that the candidate has satisfactorily completed the specified required program and units of credit as outlined by the State of Delaware. The only program requirement that may be waived will be physical education. The health requirement will stand as prescribed. Candidates presenting correspondence school diplomas, supported by transcripts showing less than the State requirements, will not be granted endorsement or approval of the correspondence school diploma.

b. The provision for "endorsement" provides for persons who earn a correspondence school diploma with proof of equivalency towards a Delaware high school diploma.

### I. TUTORING

A student may make up work toward graduation through a special tutoring program. Credits accepted under a tutoring program shall, however, be subject to these specifications:

1. The tutor must be a certified teacher in the subject being taught.

2. In the event that tutoring is carried on to make up for work failed, the tutor may not be the teacher who taught the pupil at the time of the failure.

3. Tutoring may not be used for units of credit taken in advance of the regularly scheduled program.

4. The school principal shall ascertain that the tutoring program meets the state content standards and that the program presentation is comparable to that of the high school that is to grant the units of credit.

5. It is strongly recommended that in the case of tutoring, an examination or other indicator of competency prepared by the regular subject teacher be administered to the tutored pupil prior to the granting of credit.

### J. ADDITIONAL OPTIONS FOR HIGH SCHOOL GRADUATION

1. The purpose of these additional options is to provide individual students with reasonable choices in the satisfactory and successful completion of requirements for graduation. Students may pursue an approved optional program as described in the following recommendations

with the understanding that procedures for the implementation of an alternative reside with the local school district.

a. Units of credit toward graduation shall be granted for satisfactory completion of one or more of the following types of approved and individualized program options provided they meet the state content standards:

(1) courses taken at or through a community, junior, and/or four-year college;

(2) school and related community activities such as peer teaching, teaching assistants in the elementary and secondary grades, and community volunteer service approved by and under the supervision of the school principal;

(3) approved and supervised work experience in the school and community which meet the educational objectives or special career interest of an individual student;

(4) independent study as previously described and arranged with the appropriate school administrator and staff person; and

(5) correspondence courses from an approved school in accordance with the provisions for approval by the school principal (See Page D-9).

b. Units of credit toward high school graduation shall be granted for performance in a high school course taken while in a middle school.

(1) Units of credit must be awarded for equivalent high school courses provided articulation agreements are in place with the receiving high school for each course and provided the content follows the state content standards.

(2) The appropriate unit of credit shall be recorded on the student's high school transcript and counted as part of the units of credit required for high school graduation.

e. Senior students should be provided the opportunity to schedule their classes on an individual basis so as to complete necessary requirements for graduation in accordance with the approved curriculum policies of the local school district.

(1) The program of studies for Delaware high school students specifies the minimum number of required units of credit which must be satisfactorily completed to receive a diploma.

(2) The variation in student ability and achievement requires that high school students be provided the opportunity to schedule the minimum number of required courses on an individual basis to meet the requirements for graduation.

(3) The scheduling of students on an

individual basis provides the opportunity for some to take courses beyond the minimum requirements. It also recognizes the need for other students to have a longer period of time to meet their academic and occupational preparation needs as well as satisfy their educational and personal interests.

(4) Any student enrolled in an approved non-traditional education program shall be included in the September 30th unit count.

(5) Any senior approved for an individual schedule, in order to be included in the September 30th unit count, must be enrolled in a program that provides as a minimum, one unit of credit. At a maximum, the student would be required to enroll for the number of units of credit needed for graduation. This does not prohibit the student from taking a full schedule of classes under this option.

#### AS AMENDED

#### 500.12 Options for Awarding Credit Toward High School Graduation

1.0 The following options are approved by the Department of Education as means for awarding credit toward high school graduation. In all cases listed the option or options selected shall be approved ahead of time by the local School Board or their designee(s) and shall meet the appropriate state content standards.

1.1 Courses taken at or through an accredited community college, two or four year college.

1.2 Voluntary community service as defined in 14 Del. C.

1.3 Supervised work experience in the school and the community which meets the educational objectives or special career interest of the individual student.

1.4 Independent Study.

1.5 Nationally Accredited Correspondence Courses.

1.6 Distance Learning Courses. These courses may be synchronous or asynchronous via videos or online format.

1.7 High school courses taken while in the middle school in conjunction with an articulated agreement between the district middle school and the district high school(s).

1.8 Course credit transferred from another high school.

1.9 Course credit earned through summer or evening school classes, as a member of the military service and/or as part of the James H. Groves Adult High School.

1.10 Tutoring programs taught by a teacher certified in the subject being taught.

1.11 Course credit awarded by agencies or instrumentalities of the state other than public schools which

provide educational services to students. A description of the program provided to the student, grades given, and the number of clock hours of instruction or a demonstration of competency must be provided to the school district prior to receipt of credit.

## **DEPARTMENT OF HEALTH AND SOCIAL SERVICES**

### **DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 512 (31 Del.C. 512)

#### **PUBLIC NOTICE**

Delaware Health and Social Services is proposing changes to regulations contained in the Division of Social Services Manual Section 9085. These changes are initiated pursuant to 29 Delaware Code Section 10114 and its authority as prescribed by 31 Delaware Code Section 512. Written materials and suggestions by interested persons for related to this proposal must be forwarded by January 31, 1999 to the Director, Division of Social Services, P. O. Box 906, New Castle, DE 19720.

#### COMMENT PERIOD

Any person who wishes to make petitions for reconsideration or revision thereof, such petitions must be forwarded by January 31, 1999 to the Director, Division of Social Services, P. O. Box 906, New Castle, DE 19720.

#### SUMMARY OF REGULATIONS:

Waives the earned income reporting requirements for food stamp recipients and closely aligns them to the reporting requirements in the *A Better Chance* (ABC) program.

#### NATURE OF PROPOSED REVISIONS:

#### **9085 Reporting Changes**

Certified households are required to report the following changes in circumstances:

Changes in the sources of ~~income~~ or in the amount of gross unearned income of more than \$25, except changes in the public assistance grant or GA grant in project areas where the GA grant and the food stamp application are jointly processed. Since DSS has prior knowledge of all changes in the public assistance grant and general assistance grants, action shall be taken on the DSS information. Changes reported in person or by telephone are to be acted upon in the same manner as those reported on the change

report form;

Changes in the amount of gross earned income will be reported as follows:

- New source of employment, or
- Changes in the hourly rate or salary of current employment, or
- Changes in employment status from part-time to full-time.

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### **DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 505 (31 **Del.C.** 505)

#### **PUBLIC NOTICE**

#### **Medicaid/Medical Assistance Program**

In compliance with the State's Administrative Procedures Act (APA - Title 29, Chapter 101 of the Delaware Code) and with 42CFR §447.205, and under the authority of Title 31 of the Delaware Code, Chapter 5, Section 505, the Delaware Department of Health and Social Services (DHSS) / Division of Social Services / Medicaid Program is amending its eligibility manual.

Any person who wishes to make written suggestions, compilations of data, testimony, briefs or other written materials concerning the proposed new regulations must submit same to the Director, Medical Assistance Programs, Division of Social Services, P.O. Box 906, New Castle, DE 19720 by January 31, 1999.

REVISION:

Division of Social Services Eligibility Manual

#### DSSM 18200.2 Uninsured Requirement

The DHCP is limited to uninsured, low-income children. The following children are not eligible for DHCP:

1. Children who are eligible for Medicaid.
2. Children who have Medicare.
3. Children who, at the time of application, have insurance coverage that meets the definition of comprehensive health insurance.
4. Children who have had comprehensive health insurance (other than Medicaid) within the six months preceding the month of application unless good cause exists for the loss of health insurance. The month of application is the month in which a signed application is received by DSS.
5. Children who are eligible for or who have access to coverage under a state health benefits plan on the basis of a family member's employment with a public agency in the state.

#### DSSM 18200.3 Children of Public Agency Employees

A child who has a family member who works for a public agency within Delaware and is eligible to participate in the State health benefits plan with an employer premium subsidy is not eligible for DHCP. Family member is defined as the parent of the child or the individual who has legal custody of the child. The State health benefits plan is the plan that is offered or organized by the State of Delaware on behalf of State employees or other public agency employees within the state. The State health benefits plan does not include separately run county plans, city plans, or other municipal plans.

~~The State of Delaware health benefits plan is only offered to employees of the State of Delaware and the Department of Education. It is not offered to employees of any county, city or municipality and is not offered to employees of State contractors.~~

The following public agencies participate in the State health benefits plans and offer an employer subsidy:

All school districts, colleges, and universities

All charter schools

Delaware Solid Waste Authority

Delaware State Housing Authority

Delaware Stadium Corporation

Delaware Transit Authority

Council 81

Delaware Volunteer Fire Companies

Members of Boards & Commissions covered prior to 1/

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Diamond State Port Corporation

Commission on Continuing Legal Education

Delaware Council for Vocational Education

Office of Disciplinary Council

Law Library personnel in all counties

Riverfront Development Corporation

Delaware Criminal Justice Council

Governor's Advisory Council for Exceptional Citizens

#### DSSM 18200.4 Residents of Institutions

A child who is a patient in an institution for mental disease (IMD) or who is an inmate of a public institution is not eligible.

##### 18200.4.1 Patient in an Institution for Mental Disease

An Institution for Mental Disease (IMD) is a hospital, nursing facility, or other institution of more than 16 beds that is primarily engaged in providing diagnosis, treatment or care of persons with mental diseases, not including mental retardation.

A child who is an inpatient in an IMD at the time of application, or during the scheduled redetermination, is not eligible for DHCP. If a child enrolled in DHCP subsequently requires inpatient services in an IMD, the receipt of inpatient services will not make the child ineligible

during a period of continuous eligibility.

The following in-state facilities are Institutions for Mental Diseases (IMD):

Charter BHS of Delaware at Rockford Center  
MeadowWood Behavioral Health system

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### **DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 505 (31 **Del.C.** 505)

#### **PUBLIC NOTICE**

#### **Medicaid / Medical Assistance Program**

In compliance with the State's Administrative Procedures Act (APA - Title 29, Chapter 101 of the Delaware Code) and with 42CFR §447.205, and under the authority of Title 31 of the Delaware Code, Chapter 5, Section 505, the Delaware Department of Health and Social Services (DHSS) / Division of Social Services / Medicaid Program is amending its outpatient hospital, inpatient hospital, EPSDT, general policy provider manual(s) and issuing a new provider manual for School Based Health Services.

Any person who wishes to make written suggestions, compilations of data, testimony, briefs or other written materials concerning the proposed new regulations must submit same to the Director, Medical Assistance Programs, Division of Social Services, P.O. Box 906, New Castle, DE 19720 by January 31, 1999.

#### REVISION:

Delete the policy entitled "Medicaid Credit Balance Report (MCBR)" found in Section II of the Inpatient Hospital Provider Manual.

Delete the policy entitled "Medicaid Credit Balance Report (MCBR)" found in Section II of the Outpatient Hospital Provider Manual.

This policy is now being applied to a broader range of provider types and therefore is being added to the General Policy.

#### **General Policy Manual**

#### Medicaid Credit Balance Report (MCBR)

#### General Information

Title XIX of the Social Security Act established the Medicaid Program under which federal grants are provided to states for medical assistance to low income persons. The Program is jointly financed by the Federal and state

governments and administered by the states. Within broad Federal rules, each state decides eligibility groups, types and ranges of services, payment levels for services, and administrative and operating procedures. The state's description of its Medicaid Program is called its State Plan.

Payments for services included within the State Plan are made directly by the state to the individuals or entities that provide the services. Each state designates a single State Agency which administers the operation of its Medicaid Program. On the Federal level, the Health Care Financing Administration (HCFA) within the Department of Health and Human Services oversees the Title XIX Program, monitors compliance with Federal requirements, provides Federal matching funds for qualified Medicaid expenditures incurred by the states, and reviews Medicaid expenditures for allow ability and accuracy. States report their Medicaid expenditures and claim Federal matching moneys on a quarterly basis. Federal Medicaid regulations under 42 CFR 433.300 subpart F, mandates that States adjust any outstanding Medicaid credit balances within sixty (60) days after notification by a provider.

Federal Medicaid regulations require that the state Medicaid agency take reasonable measures to determine the legal liability of third parties to pay for services under the State Medicaid Plan. In summary, these regulations require that all benefits available through other party payers be exhausted, since the Medicaid Program is the payer of last resort. Federal Financial Participation is not available if the State Medicaid Agency fails to fulfill the Federal requirements with regard to established liability and seeking reimbursements.

HCFA has completed reviews in a number of states to determine if the Federal requirements were being met. HCFA discovered instances where Medicaid funds were being retained by providers, even though other third party payments sources had made payments for the same service. HCFA's review revealed that a large number of patient records indicated credit balances in cases where the Medicaid Program was the secondary payer. In many cases, the provider billed the Medicaid Program and a third party payer. Payments made by a third party payer were credited to patient accounts, along with payments received from the Medicaid Program. However, the appropriate refunds were not made to the Medicaid Program. Credit balances were also caused by duplicate Medicaid payments.

When such circumstances occur, the provider is obligated to immediately refund the appropriate credit balances to appropriate Medicaid authorities.

#### Purpose

To insure that Medicaid properly recovers improper or excess program payments resulting from patient billing or claims processing errors, the DMAP has established a Provider Credit Balance reporting requirement. HCFA has

similarly mandated credit balance reporting requirements under the Medicare Program.

All in-State and Out-of-State providers including:

- Acute Care Hospitals
- Rehabilitation Hospitals
- Psychiatric Hospitals
- Specialty Hospitals
- Skilled Nursing Homes (SNF)
- Home Health Agencies
- Renal Dialysis Facilities

who participate in the DMAP are required to submit a quarterly Medicaid Credit Balance Report (MCBR). This quarterly MCBR submission is a requirement for all in-State and out-of-state providers who were paid greater than \$10,000 in the quarter (for either in-patient and/or out-patient services, in the case of hospital providers), by DMAP. It is the provider's responsibility to know when the \$10,000 payment threshold has been reached for each quarter. The MCBR must be submitted even though there are no credit balances on Medicaid accounts at the close of business in the reporting period.

A completed MCBR must be submitted at the end of each quarter, to the Medicaid Surveillance and Utilization Review Unit (SUR), Lewis Building, P.O. Box 906, New Castle, Delaware 19720 within 30 days after the close of each calendar quarter.

The MCBR will be specifically used to monitor the identification and recovery of "credit balances" due the DMAP. Generally, when a provider receives improper or excessive payment for a claim, it is reflected in their accounting records (patient accounts receivable) as a "credit". For example, if payments are made by the DMAP and another insurer/payer, DMAP must be reimbursed. DMAP is always considered as the payer of last resort when a patient has another insurer. However, DMAP credit balances include money due the DMAP regardless of its classification in a provider's accounting records. For example, if a provider maintains credit balance accounts for a stipulated period (e.g., 90 days), and then transfers the accounts or writes them off to a holding account, this does not relieve the provider of its liability to the DMAP. In these instances, the provider is responsible for identifying and repaying all of the moneys due to the DMAP.

#### Completing the MCBR

The MCBR consists of a certification page and a detail page (see Appendix J and K of this manual). The certification page is to be signed and dated by an authorized individual such as an officer or administrator of the provider organization. If no Medicaid credit balances are reflected in the provider's records for the reporting quarter, the certification page must still be signed and submitted attesting

to this fact. The detail page requires specific information on each credit balance account (*including both Medicaid Managed Care Recipients and Fee For Service Recipients*). The detail page may be copied, as necessary, to accommodate all credit balances being reported. See Appendix I for specific instructions on completing the MCBR.

#### Submitting the MCBR

The due date for submitting the MCBR to the DMAP is not later than 30 days from the close of the quarter. The report will include all Medicaid credit balances reflected in the provider's accounting records including transfer, holding or other general accounts used to accumulate credit balance funds) as of the close of business each calendar quarter. **REPORT ALL SUSPECTED MEDICAID CREDIT BALANCES REFLECTED IN THE PROVIDER'S RECORDS REGARDLESS OF WHEN THEY OCCURRED. DO NOT** adjust/void claim through the DMAP Fiscal Agent or send a check to Medicaid or the DMAP Fiscal Agent for claims/amounts on the MCBR. Medicaid will determine the appropriate credit balance which must be refunded to Medicaid and notify the provider concerning this repayment. It is the provider's responsibility to report and repay all improper or excess payments that have been received from the time the provider began participation in the DMAP. Penalties for non-timely submission or failure to submit the MCBR, could result in (but are not limited to) the suspension of the Provider's Medicaid payments and/or effect the provider's eligibility to participate in DMAP.

#### Validation

By contract, providers agree to allow the DMAP, and/or its authorized representatives, access to all requested financial and medical records, as appropriate, including private pay records. The DMAP retains the right to access records and reports to validate the MCBR. The DMAP will determine the necessity to access records and reports. The DMAP and/or its authorized representatives are also permitted to reproduce records as they deem appropriate.

### **EPSDT Manual**

#### Third Party Liability

Medicaid is the payer of last resort. All other patient insurance coverages must be billed before Medicaid. Under EPSDT, the only exception to this regulation is for EPSDT "screens". Nursing services must be billed to any existing third parties before Medicaid. Copies of insurance vouchers must be attached to claims and third party payments must be indicated in the appropriate field on the claim. A TPL Resource Code is also required. The TPL Resource Code identifies the insurance carrier billed for the service

Recipients who are covered by "other accessible HMO" coverage and who are thereby not eligible for enrollment in the Diamond State Health Plan (DSHP) must follow exactly the requirements of that plan for the Delaware Medical Assistance program (DMAP) to consider payment toward a claim not paid in full by their HMO. Clients must obtain referrals, prior approval, and use network providers as required by their HMO in order for the DMAP to adjudicate balance billings. If the nursing benefit is a totally non-covered benefit of the HMO plan, the DMAP will process the claim under DMAP policies.

## School Based Health Services Manual

### I. INTRODUCTION

The Department of Health and Social Services (DHSS) enters into contracts with provider agencies for the purchase of Early and Periodic Screening, Diagnostic and Treatment (EPSDT) Services furnished to eligible clients under Medicaid (Title XIX of the Social Security Act). This manual has been developed to set forth the general policies and procedures for provider participation in the EPSDT program as it relates to services provided to individuals under the age of 21 by public education organizations. For reimbursement of services by the DHSS, providers shall comply with the certification and enrollment requirements stated in this manual.

This manual is a reference document for provider agencies, Department program and contract administrators, and staff. It contains the necessary conditions and requirements for continuing participation in and reimbursement of EPSDT services.

#### Legal Basis

The EPSDT program was established by Title XIX of the Social Security Act in 1967. Sections 1902(a)(43), 1905(1)(4)(B), and 1905(r) of the Act, as amended, set forth the basic requirements for the program. Delaware enacted its EPSDT program in 1967. The Omnibus Budget Reconciliation Act of 1989 (OBRA-89) by Congress expanded the scope of the EPSDT program in terms of service coverage and participating providers.

#### Purpose and Scope of the EPSDT Program

The purposes of the EPSDT program are:

- to provide for the detection of any physical and mental problems in individuals under the age of 21 as early as possible through comprehensive medical screenings in accordance with prescribed standards; and
- to provide for appropriate and timely diagnostic and/or other services to correct or ameliorate any acute or chronic conditions found before the health problems become more complex and their treatment more costly.

EPSDT services are available statewide to Medicaid eligible individuals under 21 years of age. The amount, duration, and scope of the services provided under the EPSDT program are not required to be provided to other Medicaid eligible clients. Some EPSDT services may be limited based on medical necessity as determined by the DHSS or its representatives.

#### Definitions

The following is an alphabetical listing of definitions of terms frequently used in this manual.

*Certification* - refers to a process where by providers make application to and receive certification from the DHSS that they meet standards established for EPSDT service provision and reimbursement. See Appendix A for Application for Certification.

*Contract (provider)* - refers to the contract between the provider and the DHSS which sets forth conditions of participation and defines the services to be provided.

*Covered services* - refers to a service or procedure, provided by a provider or under a provider's supervision to a Medicaid eligible client for which Medicaid reimbursement is available.

*Department* - refers to the Delaware Department of Health and Social Services (DHSS).

*Early and Periodic Screening, Diagnosis and Treatment (EPSDT) services* - refers to a mandatory Medicaid program service which consists of screening and diagnostic services to determine physical or mental illness, treatment, and other measures to correct or ameliorate any defects or conditions discovered in clients under the age of 21.

*Eligible client* - refers to a person who is entitled to receive benefits under the Delaware Medical Assistance program (DMAP).

*Individual Education Program (IEP)* - refers to a formal, written plan which is developed to meet the needs of a child identified to be handicapped and requiring special education and health services pursuant to Delaware Department of Education regulation. (Non-handicapped children may also receive school based services and require a treatment plan, but not an I.E.P.).

*Medically necessary* - a service which is reasonably calculated to prevent, diagnose, correct, cure, alleviate or prevent the worsening of conditions that endanger life, or cause suffering or pain, or result in illness or infirmity, or threaten to cause or aggravate a handicap, or cause deformity or malfunction, and there is no other equally effective more conservative or substantially less costly course of treatment available or suitable for the eligible client requesting the services.

*Provider agency (also Provider)* - refers to a person or organization of practitioners who has been certified and enrolled by the DHSS to provide services to eligible clients and to be reimbursed by Medicaid for those services.

School based health services providers - refers to eligible providers who meet the certification and enrollment requirements for providing EPSDT related school based services provided in a public education environment.

State - refers to the State of Delaware.

#### EPSDT Provider Enrollment

One of the goals of the EPSDT program is to improve access to care by increasing the number and types of providers participating in the EPSDT program, including school systems, private physicians in individual and group practices, community health centers, Head Start agencies, and other public and private facilities providing health care to children.

Participation in the EPSDT program as a provider is entirely voluntary. EPSDT providers are not limited to those who are qualified to provide the full range of medical, vision, and hearing services.

To receive payment for EPSDT services provided to Medicaid eligible clients, a provider must enroll and be approved for participation by the DHSS. An eligible EPSDT services provider is any individual or group of individuals with medical or health care related expertise in the provision of either screening, diagnostic, or treatment services.

All providers who wish to participate in EPSDT must enroll for the specific screening service or combination of screening services or health services they wish to provide.

The DHSS reviews potential EPSDT services provider applicants. Prior to enrollment as an EPSDT services provider, the DHSS may conduct an on-site evaluation of the provider. The site visit is made to assure compliance with standards and requirements in the following areas:

- screening, diagnosis and treatment procedures;
- periodicity scheduling process;
- referral and follow-up process;
- documentation and record maintenance;
- billing and reporting procedures;
- confidentiality, informed consent, release of information, civil rights; and
- staff qualifications and licensure.

Depending upon the provider applicant's compliance with appropriate standards and requirements, either temporary or full approval may be granted. The provider's application may be denied if the provider fails to comply with necessary standards and requirements.

Local school districts may participate in the EPSDT program as school based health services providers. Participation requirements for school based health services providers are detailed in Section II of this manual.

#### General Conditions for Participation

State regulations and policy define the following general standards for providers who choose to participate as follows:

- Compliance with current licensure by the appropriate State authority for the practitioner's specialty, all applicable accrediting standards, any applicable Federal service standards, and all applicable State and Federal laws.
- Establishment of a provider agreement and enrollment with the DHSS.
- Agreement to charge the Medicaid program no more for services to eligible clients than is charged on the average for similar services to others.
- Agreement to accept the amounts established by the Department as payment-in-full and not to seek additional payment from the client or parent/guardian for any unpaid portion of a bill.
- Agreement that all services to and materials for clients of public assistance be in compliance with Title VI of the 1964 Civil Rights Action, Section 504 of the Rehabilitation Act of 1973 and, if applicable Title VII of the 1964 Civil Rights Act.

Although this is a voluntary program, a signature on a Medicaid claim form serves as an agreement to abide by all policies and regulations of the Delaware Medical Assistance Program (DMAP). This agreement also certifies that, to the best of the provider's knowledge, the information contained on the Medicaid claim form is true, accurate, and complete.

## II. PROVIDER PARTICIPATION AND REQUIREMENTS

### Provider Eligibility

Participation in the DMAP is entirely voluntary. However, in order to be eligible for reimbursement of covered services, a provider must meet specific requirements and become an approved provider of Medicaid services.

To participate as a school based health services provider, the following conditions of participation in the DMAP must be met:

- The school based health services provider must meet all applicable State licensing and certification requirements.
- The school based health services provider must meet all DHSS requirements for Medicaid participation and reimbursement.
- The school based health services provider must receive approval from the Delaware Department of Education to participate in the DMAP.
- The school based health services provider must comply with State level organizational, administrative, and program standards, and with Federal requirements for the administration of Medicaid services as contained in Federal statutes, regulations and guidelines.
- The local school district must be the enrolled provider in order to be eligible for reimbursement for

health-related services defined in the I.E.P. or in the school health program.

- Each practitioner who meets the specified professional and/or clinical qualifications to provide services in his or her discipline area must also apply for Medicaid enrollment if covered services rendered by the practitioner are to be billed on behalf of the school based provider to the DMAP.

#### Application for Certification and Enrollment

Prior to enrollment as a Medicaid eligible provider of school based health services, a school district must first apply for certification status. This certification status affirms that the school district is in compliance with appropriate Delaware Departments of Education and Health and Social Services guidelines for becoming an enrolled Medicaid provider.

A school district that wants to become a school based health services provider must initially complete an application for provider status. The Certification Application format can be found in this manual as Appendix A. In addition to supplying the application information, the school district must also attach any requested documentation and narrative description which supports the certification of the school district as a school based health services provider. The narrative description, at a minimum, must include a discussion of the following:

- School district organization, including the special education and related services programs
- Records and documentation maintenance, including reference to assessments, physician referrals, treatment plans and case/progress notes; the manner in which the records are maintained; and individuals responsible for record maintenance
- Staff qualifications, including documentation regarding staff "competency" credentials; verification practices for assuring staff qualifications for Medicaid reimbursement; and procedures for contracting with professionals who shall provide Medicaid covered services
- Quality assurance program implemented by the district to assure that Medicaid services are delivered and recorded in the appropriate manner, including a description of the program and assignment of oversight responsibilities associated with the program

In order to apply for Medicaid provider enrollment, a school district must meet the requirements of the certification process.

School districts who wish to participate in the DMAP must also apply for enrollment as a school based health services provider. A Provider Enrollment Application can be obtained from the DMAP's fiscal agent. All applicants must complete the provider application.

Applicants are requested to complete information regarding provider organization data, application type, licensing data, and provider specialty type. All relevant data fields must be completed on the application form. The application, along with any necessary documents (e.g. copies of professional licenses), is to be submitted to the DMAP's fiscal agent.

#### Notification of Enrollment Status

The applicant shall receive written notification from the fiscal agent of the new provider number. This provider number is to be used on all Medicaid reimbursement correspondence and transactions.

#### Provider Contract

Applicants who meet the requirements for enrollment with the DMAP will enter into a contract with the DHSS. Providers who sign a contract with the Medicaid program are obligated to meet certain conditions in order to remain an eligible provider and receive payment for services rendered.

The provider must abide by the DMAP's policies and procedures, including but not limited to:

- Submit claims only for services that were actually rendered by the billing provider
- Accept final Medicaid payment disposition as payment in full for Medicaid covered services
- Keep records necessary to verify the services provided and permit Federal/State representatives access to the records
- Determine the individual was Medicaid eligible at the time of service
- Make restitution for any overpayment
- Notify the DMAP of any suspensions or exclusions from any program

#### Maintenance of Records and Documentation

All providers participating in the DMAP are required to maintain records that will disclose services rendered and billed under the program, and upon request, to make such records available to the DHSS or its representatives in substantiation of any or all claims. These records should be retained a minimum of five (5) years in order to comply with all State and Federal regulations and laws.

In order for the DHSS to fulfill its obligation to verify services provided to Medicaid eligible clients and that are paid for by Medicaid, providers must maintain auditable records that will substantiate the claim submitted to Medicaid.

At a minimum, the records must contain the following on each client:

- Notice of referral for physical therapy services by a licensed physician, updated annually
- Referral/authorization for services by an appropriately credentialed service provider

- Full assessment(s) in the appropriate discipline area(s) with pertinent documentation such as tests, evaluations, and diagnosis (updated at least every 3 years), and an annual reassessment documented in written format including narrative information summarizing the child's status and the continuing need for treatment
- A treatment plan prepared by the respective therapist(s) that describes the goals/objectives and level of service(s) (i.e., type and frequency of service) needed. The treatment plan is required annually. A progress note is required approximately every six months (but no earlier than 4 months, nor later than 8 months after the date of the current I.E.P./treatment plan) which delineates the continuing need for service.. An I.E.P. must be developed within 30 calendar days following the determination that a student is eligible for special education and related services
- The name and title of the professional providing services and/or supervision
- Each occurrence of the student's service, including the date, type, length, and scope of professional services provided
- Any significant contacts made in relation to the student

#### Audits and Monitoring

All services for which charges are made to the DMAP are subject to audit. The initiating of audit proceedings should not be construed as an indication of any wrongdoing on the part of the provider. Rather, an audit should be looked upon as an ongoing and necessary part of procedures for monitoring health care facilities and services provided that is required by State and Federal regulations.

During a review audit, the provider shall furnish to the Department or its representative, pertinent information regarding claims for payment. Should an audit reveal incorrect payments were made, or that the provider's records do not support the payments that were made, the provider shall make appropriate restitution.

In addition to performing audits, the Department may routinely monitor a provider's performance with respect to compliance with certification and/or enrollment requirements. Both fiscal and clinical compliance shall be monitored. Should a provider be found to be non-compliant, Medicaid enrollment may be suspended or revoked, until at which time the provider can prove compliance with necessary requirements.

The DHSS has also delegated authority to Children's Services Cost Recovery Project (CSCR) personnel to periodically review the ongoing operations of a school based health services provider with respect to:

- Certification requirements
- Service documentation, including need for services,

treatment plans and case/progress notes

- Service practitioner's qualifications
- Billing records

#### Administrative Sanctions

Payments made by the DMAP are subject to review by program representatives to ensure the quality, quantity, and medical need for services. Administrative sanctions may be imposed against any Medicaid provider who does not meet the State and Federal guidelines, regulations and laws.

Administrative sanction refers to any administrative action applied by the DHSS, as the single state agency, against any provider of Medicaid services - which is designed to remedy inefficient and/or illegal practices that are in noncompliance with the DMAP policies and procedures, statutes, and regulations.

The DHSS may impose various levels of administrative sanctions against a Medicaid provider, including the following:

- Give warning through written notice or consultation
- Require education in program policies and billing procedures
- Require prior authorization of services
- Place claims on manual review before payment is made
- Suspend or withhold payments
- Recover money improperly or erroneously paid either by crediting against future billings or by requiring direct payment
- Refer to the State licensing authority for review
- Refer for review by appropriate professional organizations
- Refer to Attorney General's Fraud Control Unit for fraud investigation
- Suspend certification and participation in the Medicaid program
- Refuse to allow participation in the Medicaid program

The DHSS may impose sanctions against a provider of Medicaid services if the agency finds that the provider:

- Is not complying with Medicaid policy or rules and regulations, or with the terms and conditions prescribed in the provider agreement
- Has submitted a false or fraudulent application for provider enrollment status
- Is not properly licensed or qualified, or that the provider's professional license, certificate or other authorization has not been renewed or has been revoked, suspended or terminated
- Has failed to correct any deficiencies in its delivery of service or billing practices after having received written notice of these deficiencies from the DHSS
- Has presented any false or fraudulent claim for

services

- Has failed to repay or make arrangements for the repayment of any identified overpayment or erroneous payment
- Has failed to keep or make available for review, audit, or copying any information or records to substantiate payment of claims for service provision

### Appeal Process of Adverse Actions for Providers

In the case of denial from participation in the Medicaid program, the provider will receive written notification from the DHSS. The written notice will include the reason for denial.

### Deputy Director's Review

Any provider wishing to appeal an adverse action (e.g. denial from participation) must notify the Department in writing within 60 days and request a review by the Deputy Director of the Department or his/her designee. If the provider does not file within 60 days of notice of adverse action, the appeal shall be dismissed.

The Deputy Director or his/her designee will schedule a review date and place convenient for all parties. If all parties agree the Deputy Director's review may be waived. Confirmation of this agreement will be made through certified mail to the provider by the Deputy Director or his/her designee and will constitute the initiation of the time frames for the Director's review.

The provider may submit any documentation and written argument as desired to the Deputy Director or his/her designee. Such documentation must be delivered to the Department at least seven (7) days prior to the scheduled review. Submission of additional documentation may eliminate the need for a face-to-face meeting.

Based on the materials submitted by the provider, the Deputy Director or his/her designee may rule in favor of the provider and, thereby, eliminate the need for the provider to attend the meeting. The provider will be notified prior to the scheduled meeting if the meeting becomes unnecessary.

If a provider fails to appear at a scheduled Deputy Director's review meeting, the Deputy Director or his/her designee may immediately dismiss the appeal and issue a decision against the provider. The Deputy Director or his/her designee may, alternatively, at his/her discretion, reschedule the meeting if it is so warranted. If the appeal is dismissed due to failure to appear of the provider, the provider forfeits any rights to appeal further even if the adverse action would normally entitle the provider to the additional level of appeal.

After the review, the Deputy Director or his/her designee will forward a written decision to the provider. This decision will affirm, deny or modify the terms of the adverse action and is final except as noted below.

### Director's Review

The only cases which may be appealed to the Director are those which involve denial, termination or non-renewal of provider agreement, limitation(s) on participation, and any monetary adverse actions of \$1,000 or greater.

The provider may submit any documentation and written argument as desired to the Director or his/her designee. Such material must be delivered to the Department at least seven (7) days prior to the scheduled meeting. Submission of additional documentation may eliminate the need for a face-to-face meeting.

Based on the material submitted by the provider, the Director or his/her designee may rule in favor of the provider, and thereby, eliminate the need for the provider to attend the meeting. The provider will be notified prior to the scheduled meeting if the meeting becomes unnecessary.

The Director or his/her designee will schedule a time and place for the hearing convenient to all parties. The provider has the opportunity to review the documentation upon which the initial adverse action and previous level decisions were based either prior to or at the Deputy Director's review. The hearing must, at a minimum, include an opportunity for the provider to:

- Review documentation
- Appear before an impartial decision maker to refute the basis for the decision
- Be represented by counsel or another representative
- Be heard in person, to call witness, and to present documentary evidence
- Cross-examine witnesses

If a provider fails to appear at the scheduled hearing, the Director or his/her designee may immediately dismiss the appeal and issue a decision against the provider. The hearing may be rescheduled if the failure to appear was for good cause as determined by the Director or his/her designee.

The Director or his/her designee will notify the provider in writing of the decision. The decision is final and no further appeals are afforded by the Medicaid program. The provider may be held responsible for all costs incurred in holding the Director's review.

## III. RECIPIENT ELIGIBILITY

### Eligibility

Payment for school based health services under the EPSDT program is available for all individuals under the age of 21 eligible for Medicaid, subject to the conditions and limitations that apply to these services.

Payment can be made by the DMAP only for services provided to individuals who are eligible clients on the date services are actually provided. It is the responsibility of the provider to verify an individual's eligibility for medical

assistance prior to providing services by requesting the individual (or parent/guardian) to present evidence of his/her eligibility at the time of service provision. The local cost recovery specialist, acting on behalf of an enrolled school-based health services provider, may also verify Medicaid eligibility through the Medicaid Managed Information System (MMIS).

An individual who claims to be a Medicaid eligible client, but for whom eligibility cannot be established should be considered ineligible until proven otherwise.

#### IV. SERVICES AND PROGRAMS

##### Availability

Payment for school based health services is available for all individuals under the age of 21 who are eligible for Medicaid subject to the conditions and limitations which apply to these services.

##### Covered School Based Health Services

The DMAP shall pay for a covered service provided to an eligible Medicaid client or to a person who is later found to be eligible at the time he or she received the service. To be eligible for payment, a school based health service must:

- Be determined by prevailing community standards or customary practice and usage to:
  - be medically necessary
  - be appropriate and effective for the medical needs of the individual
    - meet quality and timeliness standards
    - be the most cost-effective health service available for the medical needs of the individual
- Represent an effective and appropriate use of DMAP funds
- Be within the service limits specified by the DMAP
- Be personally furnished by personnel who meet the necessary requirements and credentials described in this manual

The school based health services which are covered under the DMAP are described below.

##### EPSDT Assessment Services

The following EPSDT assessment services are included in this service category and should be used to document service provision for reimbursement purposes:

- EPSDT Partial Assessment: Health Education - includes one-to-one teaching and health counseling
- EPSDT Partial Assessment: Immunization - includes immunization review
- EPSDT Hearing Assessment - includes hearing screening
- EPSDT Vision Assessment - includes vision screening

- EPSDT Partial Assessment: Developmental/Orthopedic - includes orthopedic screening
- EPSDT Dental Assessment - includes a dental oral exam using a mouth mirror and explorer. The screening identifies any caries and/or any other abnormalities that would be present, including but not limited to:
  - abscess
  - growth or lesion
  - traumatic fracture or injury
  - rampant caries
  - orthodontic problems
  - necessary prophylaxis treatment
  - periodontal problems
- EPSDT Dental Health Education - includes one-to-one teaching of awareness, prevention and education. Teaching of dental health education is age appropriate. The following is included in dental health education: awareness of teeth, elimination of fear and other barriers to dental care, dental hygiene techniques, prevention, plaque control, brushing and flossing techniques, and how dental health is related to psychological and physical health.

As necessary, families are notified and referred to private or public service providers. The referral process may include identification of available service providers and assistance in access to service.

##### EPSDT Assessment Services: Treatment Plan Requirements

Treatment plans for assessment services are not required. Rather, documentation is required if the eligible client is to be referred for evaluation and/or treatment services which have been identified as a result of the assessment service(s). A referral status should be documented for each assessment service when a referral for additional service is determined appropriate and/or necessary.

##### Speech, Language, and Hearing Services

###### Speech, Language, and Hearing: Assessment

Assessment refers to the process of determining the need, nature, frequency and duration of treatment; deciding the needed coordination with others involved; and documenting these activities.

The speech, language, and hearing evaluation includes the assessment of articulation and language (receptive, expressive; form, content, and use) as measured by a standardized/norm-based instrument (i.e., criterion referenced measures including clinical observations). The evaluation may also include an assessment of oral motor functioning (oro-pharyngeal function), voice quality and speech fluency.

Results of the evaluation may identify a significant

delay or disorder in one or more of the following areas:

- |                               |                              |
|-------------------------------|------------------------------|
| 1. <u>Articulation skills</u> | 4. <u>Language</u>           |
| 2. <u>Speech fluency</u>      | 5. <u>Oral motor/feeding</u> |
| 3. <u>Voice quality</u>       | 6. <u>Hearing</u>            |

#### Speech, Language, and Hearing Treatment

The type and level of treatment services are a direct outcome of the assessment. Service options include:

##### 1. Direct Service

Articulation: Treatment, support and rehabilitation services to ameliorate articulation disorders (misarticulated phonemes) with stimulability of at least two phonemes and decreased intelligibility of conversational speech.

Fluency: Treatment, support and rehabilitation services to ameliorate speech dysfluencies, and to ameliorate a child's struggle with behavior and concerns about his/her dysfluencies.

Voice: Treatment, support and rehabilitation services to ameliorate voice pathology and/or abnormality of vocal quality, pitch or volume.

Language: Treatment, support and rehabilitation services to improve a child's language skills which fall outside average ranges, and exhibit significant weakness in a single area such as auditory memory or vocabulary.

Auditory Training: sound discrimination tasks (in quiet noise), sound awareness, sound localization, support services for hearing aid use/wear.

Audiology Treatment: support and rehabilitation services to hearing impaired children and their families, including ongoing assessment of hearing aid function, adjustment/modification of hearing aids, repair of hearing aids, recommendation for new hearing aids, counseling to child and parents regarding proper care and use of amplification.

2. Case Consultation - (Reimbursable as a treatment service for the time of the therapist only and pertain specifically and completely to an individual student.) The role of consultation is monitoring, supervising, teaching and training professionals, paraprofessionals, parents and students in the educational environment, home and/or community environment. Case consultation includes:

- Providing general information about a specific student's handicapping condition
- Teaching special skills necessary for proper care of specific student's hearing aid
- Development/maintenance/demonstrating use and care of adaptive/assistive devices for a specific student
- Recommendations for enhancing a specific student's performance in education environments

#### Speech, Language, and Hearing Services: Service Procedures

The following service procedures are included in the speech, language, and hearing services category and should be used to document service provision for reimbursement

purposes:

- Speech, language, and hearing assessment
- Individual speech/language therapy - one therapist to one student
- Individual hearing therapy - one therapist to one student
- Group speech/language therapy - one therapist to five or less students
- Individual speech/language co-treatment therapy - two therapists to one student
- Individual hearing co-treatment therapy - two therapists to one student
- Group speech/language co-treatment therapy - two therapists to five or less students

#### Speech, Language, and Hearing Services: Treatment Plan Requirements

An assessment and treatment plan are required annually. The treatment plan must be based on an evaluation by the speech, language, hearing and/or audiology therapist. Further, the treatment plan must indicate goals/objectives and level of service (type and frequency of service).

A progress note is required approximately every six months (but no earlier than 4 months nor later than 8 months after the date of the current I.E.P./treatment plan) which delineates the need for ongoing treatment. The progress note must:

- indicate where the student is in relation to the treatment plan goals
- indicate if the treatment plan requires changes in the goals and/or objectives and
- indicate if the type or frequency of the treatment requires modification.

#### Occupational Therapy Services

##### Occupational Therapy: Evaluation

Evaluation refers to the process of determining the need, nature, frequency and duration of treatment; deciding the needed coordination with others involved; and documenting these activities. This evaluation addresses the varying degrees of developmental delay, neurological deficits, and/or neuromuscular disorders:

- Sensory motor skills, such as sensory awareness, sensory processing, and perceptual skills
- Neuromuscular functioning, such as range of motion, muscle tone, and endurance as related to daily living skills, school/work activities, play and leisure skills, and vocational skills
- Motor skills, especially fine motor coordination/dexterity, visual -motor integration, and oral - motor control
- Cognitive components, such as arousal, attention span, sequencing, problem solving, and generalization

of learning

- Psychosocial/psychological components, such as interest, self-concept, social conduct, self-expression, time management, and self-control

When appropriate, standardized tests should be used. Standardized tests are those whose scores are based on accompanying normative data, which may reflect age ranges, sex, ethnic groups, geographic regions, and socio-economic status. If standardized tests are not available or appropriate, the results shall be expressed in a descriptive report.

#### Occupational Therapy: Treatment

This service includes the provision of intervention activities, procedures, and environmental modifications necessary to implement the goals and objectives of the IEP and the occupational therapy intervention plan.

1. Direct Therapy - In direct therapy, the occupational therapist has frequent contact with the student to help the student effectively meet demands (self-care, physical, social, emotional, academic) within current and anticipated educational environments.

2. Monitoring (Reimbursable as a treatment service for the time of the therapist only.) - In monitoring, the occupational therapist develops the intervention plan to enhance IEP goals, but instructs others (teachers, aides, paraprofessionals, volunteers, parents) to carry out the procedures. The selection of monitoring interventions should be based on consideration of both the health and safety of the student, and the appropriate procedural precautions.

3. Case Consultation (Reimbursable as a treatment service for the time of the therapist only and must pertain specifically and completely to an individual student.) The purpose is to develop the most effective educational environment for the individual with special needs. This service is frequently provided when a student shifts from a self-contained special education classroom to a regular classroom with resource room help. Case consultation might be used to alter the style of presenting materials, to develop remediation materials for the student to use in the classroom or to adjust the demands for specifically required tasks.

#### Occupational Therapy Services: Service Procedures

The following services are included in the occupational therapy services category and should be used to document service provision for the purpose of reimbursement:

- Occupational therapy evaluation
- Occupational therapy: Individual treatment - one therapist to one student
- Occupational therapy: Group treatment - one therapist to five or less students.

#### Occupational Therapy Services: Treatment Plan

#### Requirements

An assessment and treatment plan are required annually. The treatment plan must be based on an evaluation by an occupational therapist. Further, the treatment plan must indicate goals/objectives and level of service (type and frequency of service).

A progress note is required approximately every six months (but no earlier than 4 months nor later than 8 months after the date of the current I.E.P./treatment plan) which delineates the need for ongoing treatment. The progress note must:

- indicate where the student is in relation to the treatment plan goals
- indicate if the treatment plan requires changes in the goals and/or objectives and
- indicate if the type or frequency of the treatment requires modification.

#### Physical Therapy Services

##### Physical Therapy: Assessment

Assessment refers to the process of determining the need, nature, frequency and duration of treatment; deciding the needed coordination with others involved; and documenting these activities.

1. Screening is the process of surveying an individual in order to identify previously undetected problems and reviewing written or verbal information concerning a handicapped individual in order to determine the need for physical therapy services. Screening may include:

- Review of written material
- Direct observation by a physical therapist, other professionals, and parents
- Discussion of information, history and current concerns between the physical therapist and parents and/or other professionals on the multi-disciplinary team

2. Evaluation refers to the process of obtaining and interpreting data necessary for service delivery. The nature of evaluation will be determined by the student's handicapping condition and how it impacts the educational program. The physical therapist should be a member of the multi-disciplinary team and the IEP team, where appropriate, in order to:

- Provide the participants at the multi-disciplinary team meeting with the physical therapy evaluation and information necessary to determine eligibility for physical therapy services
- Determine the student's physical therapy needs and/or related services; to recommend goals and objectives, procedures, materials, environments and any other considerations necessary for meeting those needs

Categories of Physical Therapy Evaluation Services may include, but not be limited to:

- A) standardized tests
- B) non-standardized tests, such as:
  - adaptive devices and equipment utilization
  - classroom positioning
  - analysis of postural control and/or deviations
  - developmental testing
  - environmental accessibility
  - functional motor skills
  - gait analysis
  - manual muscle testing
  - mobility skills
  - postural responses (reflexes and automatic reactions)

#### Physical Therapy: Treatment

The type and level of treatment services are a direct outcome of the ongoing reassessment of therapy services. Service options include:

1. Direct Service
  - Normalization of postural tone in preparation for function using neurophysiological techniques
  - Therapeutic exercise (strength, endurance, coordination)
    - Range of motion (ROM) exercise
    - Functional mobility (wheelchair, automobile, bike, trike, access to public transportation)
    - Functional motor skills
    - Postural control, symmetry and stability
    - Gait training
    - Positioning and body mechanics in classroom programming
  - Modalities - hot/cold packs, whirlpool, electrical stimulation, biofeedback, infrared
  - Development, maintenance, training for adaptive equipment and devices
  - Stimulation of cardiovascular and respiratory function
    - Self-management training
    - Disability awareness training

2. Case Consultation (Reimbursable as a treatment service for the time of the therapist only and must pertain specifically and completely to an individual student.). The role of consultation is monitoring, supervising, teaching and training of professionals, parents and student in the educational environment, home and/or community environment. This may include:

- Providing general information about a specific student's handicapping condition
- Teaching special skills necessary for proper handling, lifting and positioning for a specific student
- Development/maintenance/demonstrating use and care of adaptive/assistive devices for a specific

student

- Recommendations for enhancing a specific student's performance in education environments

#### Physical Therapy Services: Service Procedures

The following services are included in the Physical therapy services category and should be used to document service provision for the purpose of reimbursement:

- Physical therapy assessment
- Physical therapy: Individual treatment - one therapist to one student
- Physical therapy: Group treatment - one therapist to five or less students.

#### Physical Therapy Services: Treatment Plan Requirements

An assessment and treatment plan are required annually. The treatment plan must be based on an evaluation by a physical therapist. Further, the treatment plan must indicate goals/objectives and level of service (type and frequency of service).

A progress note is required approximately every six months (but no earlier than 4 months nor later than 8 months after the date of the current I.E.P./treatment plan) which delineates the need for ongoing treatment. The progress note must:

- indicate where the student is in relation to the treatment plan goals
- indicate if the treatment plan requires changes in the goals and/or objectives and
- indicate if the type or frequency of the treatment requires modification.

#### Mental Health Treatment Services

##### Mental Health Treatment Assessment

Assessment refers to the process of determining the need, nature, frequency and duration of treatment; deciding the needed coordination with others; and documenting these activities.

1. Screening: Mental Health screen has four primary components:

a) Child study team meetings - a meeting of staff who have knowledge of a referred student to discuss the referral problem for the purpose of determining the next step in the screening process.

b) Observations - a period of time spent observing a referred student in a natural setting for the purpose of determining student's academic and/or interpersonal behaviors.

c) Group testing - Psychologist's or psychiatrist's participation in administration of tests for the purpose of obtaining specific information about a student or group of students.

d) Records review - Information gathering on a

designated student by way of examining academic, health, behavioral and any other related records for the purpose of providing data relevant to concerns.

2. Evaluation includes a "Psycho-educational Assessment". This assessment includes psychological and/or educational testing, typically for intellectual, personality, and/or educational evaluation of referred student, for diagnostic purposes resulting in the generation of a report. The psychological component of the assessment evaluates the intellectual, academic, perceptual motor skills, social and emotional adjustment, and readiness for learning.

#### Mental Health Treatment Services

Mental health treatment services includes the following therapeutic and related services:

1. Individual Therapy - This service consists of supportive, interpretive, insight oriented and occasionally directive interventions.

2. Group therapy - This service is designed to enhance socialization skills, peer interaction, consensual validation, expression of feelings, etc.

3. Family Therapy - This service consists of sessions with one or more family members, for purposes of effecting changes within the family structure, communication, clarification of roles, etc.

4. Case Consultation (Reimbursable for the time of the mental health professional only and must pertain specifically and completely to an individual student.) The role of consultation is monitoring, supervision, teaching and training of professionals, paraprofessionals, parents and student in the educational environment, home and/or community environment. Case consultation includes:

- Providing general information about a specific student's handicapping condition
- Teaching special coping and intervention techniques necessary for the specific student's interpersonal skills
- Recommendations for enhancing a specific student's performance in educational environments

#### Mental Health Treatment Services: Service Procedures

The following services are included in the mental health treatment services category and should be used to document service provision for the purpose of reimbursement:

- Mental health treatment assessment
- Individual therapy - one therapist to one student
- Group therapy - one therapist to six or less students.
- Family therapy - one therapist to one or more family members of the student's family
- Individual co-treatment therapy - two therapists to one student
- Group co-treatment therapy - two therapists to six or less students
- Family co-treatment therapy - two therapists to one

or more family members of the student's family

- Case consultation

#### Mental Health Treatment Services: Treatment Plan Requirements

An assessment and treatment plan are required annually. This treatment plan must be based on an evaluation by a qualified mental health treatment provider. Further, the treatment plan must indicate goals/objectives and level of service (type and frequency of service).

A progress note is required approximately every six months (but no earlier than 4 months nor later than 8 months after the date of the current I.E.P./treatment plan) which delineates the need for ongoing treatment. The progress note must:

- indicate where the student is in relation to the treatment plan goals
- indicate if the treatment plan requires changes in the goals and/or objectives and
- indicate if the type or frequency of the treatment requires modification.

#### Nursing Services

The following service procedures are included in the Nursing Services category and should be used to document service provision for reimbursement purposes:

Individual nursing treatment - includes one or more of the following:

- Personal care, which is medically necessary and requires nurse intervention
- Nursing evaluation
- Naso-gastric feedings--Bolus/drip
- Gastrostomy feedings--Bolus/drip
- Change of gastrostomy tube
- Catheterization
- Tracheal suctioning
- Tracheal care--Decanulation
- Tracheal ventilation--Ambu bag
- Medications--Administration and monitoring
- Diabetic care--Monitoring and/or medication administration
- Wound care--First aid
- Wound care--ongoing
- Cast care
- Postural drainage
- Chest percussion
- Suctioning
- Special diet considerations--Modification and monitoring
- Feeding of children with oral motor deficits (Speech/O.T.)
- Collateral contacts for updating medical information--community agencies, doctor, staff, family
- Physician prescribed medical treatments

- Care of the sick
- Oxygen administration
- Nebulizing/humidifying

#### Special Transportation Services

Services are for transportation to and from the individual's place of residence and the location where school based health services are provided to children with special needs. The locations are special schools which include, but not limited to, autistic, deaf/blind and orthopedic schools, among others. Because of the seriousness of the medical conditions, either transportation aides are required to assure that the children are safely transported, and/or specialized buses, capable of handling wheelchairs and other medical equipment that results from medical conditions, are required. Special Transportation is only covered on days when a Medicaid-covered health service (other than transportation) is also provided.

#### Special Transportation Services: Treatment Plan Requirements

Both the school-based health service(s) provided to the child and the special transportation service must be included in the child's I.E.P.

#### Service Documentation

School based health services providers must make all records of services provided to students with special health needs available to Medicaid program personnel or its representatives for monitoring and auditing purposes. These providers must maintain the following information for at least five years on all individuals for whom claims have been submitted:

- Dates and results of all evaluations/assessments provided in the interest of establishing or modifying an IEP, including specific tests performed and copies of evaluation and diagnostic assessment reports
- Copies of the IEP/treatment plan documenting the need for the specific therapy, treatment or transportation service (updated annually)
- Documentation of the provision of service in the student's record by individual therapists and individuals providing service, including:
  - the date of service
  - signature of the therapist rendering the service
  - duration of the service
- Documentation of case notes, at a minimum of once a month, by the individual therapist or the individual providing the service. The definition of case note is a descriptive summary of service provided with identification of any isolated or recurring problems. If a practitioner chooses to document session notes, there is no need to document monthly case notes. Session notes must contain some written narrative.
- The provision of special transportation services will

be documented by the responsible schools in a client specific, date specific format.

- Progress notes delineating the continuing need for service are required approximately every 6 months (but no earlier than 4 months nor later than 8 months after the date of the current IEP/Treatment Plan)

#### Need for Service and Authorization Process

Any Medicaid eligible individual requiring school based health services may receive these services from the local school district provided that:

- All school based health services relate to a medical diagnosis
- The service provided is within the scope of the profession of the practitioner performing the service
- record, including the name(s) of the practitioner(s) actually providing the service(s)
- The treatment services are part of the student's written treatment plan on file with the participating local school district. Exceptions to this include emergency or unplanned nursing or mental health treatment services. The treatment plan, as developed by the respective therapist(s), shall be subject to review by authorized DMAP personnel. The treatment plan must include:
  - an indication of the applicable medical diagnosis and other conditions and
  - anticipated rehabilitation goals/objectives
  - a description of the type, amount, frequency and duration of the services to be provided
  - signature by the appropriate school-based health personnel substantiating that the
  - treatment services are necessary because the
  - child requires skilled health services
  - evidence of annual physician referral for physical therapy services

Prior authorization by the DMAP is not required for reimbursement of covered school based health services except as noted below. A referral for service(s) and a documented need for the service(s), however, is required.

Evidence of referral for services and the documented treatment plan must be maintained in the eligible individual's health care record or other approved location which is readily accessible should verification of service need be necessary.

If during periodic monitoring reviews or DMAP audits it is found that the need for service(s) is not sufficiently documented for an individual, the Department may determine prior authorization of services shall be necessary in order to obtain Medicaid reimbursement for services.

The DMAP shall notify the school-based health services provider should prior authorization for reimbursement of covered services become necessary.

Medical Necessity

Medical necessity will be determined by judging what is reasonable and necessary with reference to accepted standards of medical practice and treatment of the individual's illness.

School based health services shall be determined medically necessary based upon the assessments and evaluations conducted and the prescribed care as found in the student's treatment plan. The treatment plan shall be developed by a multi-disciplinary team, or by an authorized therapist or other authorized medical professional and signed by treatment team members. The treatment plan should address the medical necessity for the identified service(s).

Although a physician signature is not required on the treatment plan, evidence of annual physician referral is required for physical therapy services.

Service Limitations and Exclusions

Except for limitations and exclusions listed below, Medicaid will reimburse for school based health services which conform to accepted methods of screening, assessment, diagnosis and treatment.

The following general service limitations shall apply:

1. Treatment services are generally limited to a maximum of one session per day of the same type per child, with the exception of certain nursing services that may require repetitive sessions during the course of the day.

2. Reimbursement may be provided for covered services until a recipient attains age 21.

3. Covered services are generally limited to the types and amounts listed below: NOTE: One unit is equal to 15 minutes for all services except transportation. The unit of service for transportation is a round trip.

- EPSDT Partial Assessment--Health Education - 4 units per year.
- EPSDT Partial Assessment--Immunization one unit per year.
- EPSDT Hearing Assessment--one unit per day/ 2 units per year.
- EPSDT Vision Assessment--one unit per day/2 units per year.
- EPSDT Partial Assessment--Developmental/orthopedic-one unit per year.
- EPSDT Dental Assessment--two units per year.
- EPSDT Dental Health Education--two units per year.
- Speech, Language, and Hearing Assessment--24 units per month.
- Individual Speech/Language Therapy--20 units per week.
- Individual Hearing Therapy--20 units per week.

- Group Speech/Language Therapy--20 units per week.
- Individual Speech/Language Co-Treatment Therapy--20 units per week.
- Individual Hearing Co-Treatment Therapy--20 units per week.
- Group Speech/Language Co-Treatment Therapy--20 units per week.
- Occupational Therapy Evaluation--12 units per six months.
- Individual Occupational Therapy Treatment--6 units per day.
- Group Occupational Therapy Treatment--6 units per day.
- Physical Therapy Assessment--12 units per six months.
- Individual Physical Therapy Treatment--6 units per day.
- Group Physical Therapy Treatment--6 units per day.
- Mental Health Treatment Assessment--25 units per year.
- Individual Mental Health Treatment Therapy--4 units per day/80 units per month.
- Group Mental Health Treatment Therapy--4 units per day/80 units per month.
- Family Mental Health Treatment Therapy--4 units per day/80 units per month.
- Individual Mental Health Co-Treatment Therapy--4 units per day/80 units per month.
- Group Mental Health Co-Treatment Therapy--4 units per day/80 units per month.
- Family Mental Health Co-Treatment Therapy--4 units per day/80 units per month.
- Mental Health Case Consultation--4 units per day/80 units per month.
- Individual Nursing Treatment--16 units per day.
- Transportation Services--one round trip per day.

Services billed that exceed these general limitations shall be "pended" until medical necessity is determined. Pended services shall not be reimbursed and shall be subject to review by representatives of the DMAP. If determined medically necessary, these services shall be reimbursed according to the established fee schedule.

The following services shall not be covered:

- Physical therapy services provided without physician referral.
- Services provided but not documented in the individual's treatment plan or student record. An exception to this is the provision of nursing and

psychological services that are unplanned or emergency in nature.

- Services rendered which are not provided directly to the eligible individual or family member, or on behalf of the individual. Indirect services such as attendance at staff meetings, staff supervision, etc. are non-covered services.
- Canceled visits or appointments not kept.
- Services that are solely educational, vocational, or career oriented.
- Services which are solely recreational in nature.

## V. STAFF AUTHORIZED TO PROVIDE SERVICES

### Authorized Personnel

Covered services may be reimbursed only when the services are provided by appropriately qualified personnel in their respective discipline. The following covered services may be reimbursed:

- EPSDT screening services when provided by a State of Delaware licensed registered or practical nurse
- EPSDT hearing assessment when provided by a State of Delaware licensed registered or practical nurse, licensed speech-language pathologist, or a licensed audiologist
- EPSDT dental assessment when provided by a State of Delaware licensed dental hygienist
- EPSDT dental health education when provided by a State of Delaware licensed dental hygienist
- Speech, language, and hearing services when provided by a State of Delaware licensed speech-language pathologist or a licensed audiologist holding a Certificate of Clinical Competence in Speech-Language Pathology
- Occupational therapy services when provided by a State of Delaware licensed occupational therapist or a certified occupational therapist associate (COTA) under the supervision of a State of Delaware licensed occupational therapist
- Physical therapy services when provided by a State of Delaware licensed physical therapist or a State of Delaware licensed Physical Therapy Assistant under the supervision of a State of Delaware licensed physical therapist
- Mental health treatment assessment when provided by a State of Delaware licensed psychiatrist or psychologist, or a Delaware certified school psychologist
- Mental health treatment services when provided by a State of Delaware licensed psychiatrist or psychologist, a Delaware certified school psychologist, a State of Delaware licensed registered nurse or practical nurse, a State of Delaware licensed professional counselor of mental health, a State of

Delaware licensed clinical social worker, or a masters of social work under the supervision of a licensed clinical social worker

- Nursing services when provided by a State of Delaware Licensed registered or practical nurse.
- Special transportation services when rendered by qualified providers according to the Department of Education's rules and regulations governing the transportation of school age children, and in particular children with special needs. Appropriate policies and procedures ensure the health, safety and welfare of children by addressing:
  1. insurance requirements
  2. licensing of individuals engaged in transporting children safety equipment
  3. vehicle condition and maintenance
  4. emergency procedures
  5. use of additional staff to accompany children with medical and/or behavioral conditions which could interfere with the safe transport of the passengers.

### Billing for Staff Services

Billing is allowed only for services provided by staff who are professionally or clinically qualified to render services in their respective areas. Billing for services rendered by professional or clinical staff who do not meet the above credentials is not permitted.

Billing for professional or clinical personnel who are under contract is allowed providing the local school district assumes responsibility for the submission of claims and provides appropriate supervision of the contracted personnel.

Services may be billed for reimbursement only when provided by qualified professionals as described above.

## VI. QUALITY ASSURANCE

### Quality Assurance Activities

Each school district that participates as a Medicaid School Based Health Services provider shall conduct ongoing quality assurance activities. The purpose of the quality assurance activities is to ensure the fiscal integrity of the Medicaid School Based Health Services program.

The quality assurance activities shall reflect the overall approach to ensuring that the required documentation in support of service provision is available.

Each provider shall have the flexibility to develop quality assurance activities that meet the specific needs and expectations of the individual provider. However, the quality assurance activities, at a minimum, should address policies and procedures for the following:

- Assurance that health related and special education services are provided to any individual who is determined to be in need of services regardless of the

student's or parent's financial status or Medicaid eligibility to pay for such services

- Identification of Medicaid covered services that are provided by professional and/or clinical staff in the school district and identification of the manner in which these services shall be provided to Medicaid eligible individuals
- Verification that required professional credentials and licensure of staff providing Medicaid covered services to Medicaid eligible individuals is in place
- Verification that assessments and evaluations are generally rendered to students to determine type and level of need for services
- Verification that treatment plans (IEP's) are developed for special needs children determined to be in need of school based health services
- Verification that treatment plans are authorized by appropriately credentialed personnel and verification that referral for services by physicians exists, when necessary
- Verification that services are appropriate and medically necessary, as defined by the DMAP.
- Verification that service provision is properly documented, including service records and case notes/progress notes, and the maintenance of service documentation
- Verification that provider personnel who do not meet State licensure requirements are "under the supervision" of qualified personnel
- Periodic reviews shall be conducted by the Education Associate—Cost Recovery Project to ensure that guidelines and requirements set forth in the quality assurance activities are followed
- The Local Cost Recovery Specialists shall be the individuals with primary responsibility for the administration of the quality assurance program

The provider may wish to seek assistance or advice from the State's Education Associate - Cost Recovery Project to ensure that the quality assurance plan developed by the provider meets the requirements for certification and participation in the Medicaid school based health services program.

#### Client Records

The provider's record keeping policies and procedures as they pertain to Medicaid eligibility and the provision and reimbursement of covered services shall be consistent with the DMAP's laws and regulations governing confidentiality of client information.

The provider shall have a continuing system for collecting and recording accurate data describing the individuals being served, and the services being provided, permitting easy retrieval and utilization of data for financial

billing, utilization review, program evaluation, and State and Federal audit review.

The student's service record shall contain, but is not limited to, the following:

- Identifying data including name, address and phone number, sex, date of birth, next of kin, date of initial referral or assessment/evaluation, date of service initiation, and source of referral
- Date of most recent EPSDT screen
- Referral documentation by a physician or other health care professional
- Assessment, evaluation and testing reports
- Handicapping condition of the student and/or a diagnosis which has been determined using a recognized diagnostic system (e.g., ICD-9)
- An Individual Education Program, if the student is determined to need special education and related services
- A current treatment plan which sets forth the type, level and frequency of services provided to the student
- Progress notes and other relevant service documentation which denotes status of services and progress to identified service goals
- Documentation of each service rendered which describes the type of service(s) provided and the date the service(s) were provided
- Documentation supporting the discontinuation of services including treatment outcome(s) or referral for continued/enhanced services outside of the school based health services provider

#### Quality Assurance Monitoring

Each participating school district shall be responsible for implementing a quality assurance program consistent with the guidelines described in the Quality Assurance Activities section of this manual. The quality assurance program shall ensure that Medicaid reimbursable services are provided and appropriately reported in a manner consistent with the DMAP rules, procedures and laws.

Moreover, each participating school district shall establish a monitoring function which assures that the principles, standards and procedures applicable to Medicaid reimbursement for school based health services are followed and maintained. The monitoring process shall encompass the following objectives:

- To assess and evaluate the ongoing practices of the schoolbased health services Medicaid reimbursement program to ensure compliance with certification and enrollment requirements
- To assist the school district in maintaining a system of accountability and reporting of school based health services
- To periodically review student records and financial billing records to ensure adequate

documentation exists to substantiate Medicaid claims

- To recommend and assist in the implementation of appropriate, necessary corrective actions so that Medicaid reimbursement will not be jeopardized
- To coordinate and report quality assurance and monitoring findings to Education Associate - Cost Recovery Project and the DMAP personnel, as appropriate

Each school based health services provider shall be assigned a Local Cost Recovery Specialist to assist the school district in establishing a quality assurance program and to monitor the effectiveness of the program. In addition, the Local Cost Recovery Specialist will periodically audit Medicaid required records and documentation.

#### Organizational Structure for Quality Assurance Monitoring

The responsibility for ensuring an effective school based health services quality assurance program is shared among several organizational levels. This responsibility is shared among:

- The DMAP - responsible for ensuring the overall, Statewide integrity of the school based health services program (as well as other Medicaid programs) through the establishment of policies and procedures, utilization reviews, and Medicaid audits.
- Education Associate - Cost Recovery Project - responsible for the coordination of a comprehensive, integrated quality assurance program and reporting process for all participating school based health services providers.
- Participating School Based Health Services Providers - responsible for the local level administration and functioning of the Medicaid school based health services program in each of its participating schools. Responsibility focuses on appropriate service provision rendered by qualified personnel, service documentation, and accurate billing records.
- Local Cost Recovery Specialist - responsible for the local level monitoring process of provider operating performance, service documentation and record maintenance, and billing procedures. The Specialist shall also be responsible for the following:

1. performance auditing (e.g., service documentation, personnel qualifications, billing records)
2. quality assurance status reporting
3. corrective action recommendation and assistance
4. ongoing technical assistance to the local school based health services provider

It shall be the responsibility of designated personnel from the DMAP and the CSCR to ensure that an effective statewide school based health services Medicaid program functions in Delaware. They shall also be responsible for the

on-going communication with other organizational entities in support of an integrated, consistent quality assurance program.

#### Program/Clinical Review

Surveillance and Utilization Review System (SURS) staff of the DMAP shall monitor the program/clinical review for the school based health services program. They shall periodically review Medicaid eligible client records, treatment plan documentation, and service record documentation to determine the appropriate and effective utilization of Medicaid services. Determinations regarding the medical necessity of services shall also be performed by these Medicaid personnel.

#### Fiscal Reporting Reviews

In addition to the performance of program/clinical determinations, the quality assurance function also encompasses the accuracy of fiscal documentation and reporting. Key to this function is evidence of documentation to support a claim to Medicaid on behalf of a Medicaid eligible client.

In determining whether a Medicaid claim is valid, the following documents must be available for review:

- Evidence that an EPSDT assessment was performed on the child in the form of a notation in the child's health or other record and the referral for service(s), if appropriate
- If billing for an EPSDT assessment, a notation in the student's health or other record and signed by an authorized, qualified professional who performed the assessment, including the date of the service
- A treatment plan indicating the scope of service(s) to be provided, including the frequency and level of service(s), signed by an authorized, qualified professional
- Evidence of service provision (e.g., service ticket) which notes student's name, the date of service, type of service, and number of units of service rendered, signed by a qualified professional
- At a minimum, monthly case/progress notes documenting the status of service provision, continued need for service, and impact of service on the student's health and well-being.
- A semi annual progress note, (no earlier than 4 months nor later than 8 months after the date of I.E.P/ Treatment plan), which summarizes progress or lack thereof and documents the continued need for service.

The Local Cost Recovery Specialist may perform a fiscal review of the practices of a school based health services provider at any time. Ideally, these reviews shall be performed on a monthly basis with a representative sample of Medicaid claims verified.

It shall be the responsibility of the Local Cost Recovery Specialist to advise the provider of any irregularities or inappropriate practices identified during the fiscal review. The Local Cost Recovery Specialist shall also provide assistance to the provider to immediately correct any irregularities or modify provider practices so that the fiscal integrity of the program can be maintained.

Dependent upon the nature of the fiscal review findings, the Local Cost Recovery Specialist may also report his/her findings to the Education Associate - Cost Recovery Project and/or Medicaid program management.

#### Monitoring Process

As noted above, the Local Cost Recovery Specialist is responsible for the day-to-day monitoring of the school based health service provider practices. This monitoring process may be either an informal process with periodic spot-reviews of client and service records, or a more formal review of the treatment plans, service records, case documentation, and billing forms. Either type of review may include document review, interviews with provider personnel, and analysis of claims history data.

Initially, the Local Cost Recovery Specialist will review all service records for which a Medicaid claim is to be submitted. This 100% review of service records will be a prospective review (i.e., performed prior to the submission of a Medicaid claim) and will be performed on a monthly basis.

Based upon the recommendation of the Local Cost Recovery Specialist and agreed upon by the Education Associate -Cost Recovery Project, the sample size may be reduced and/or the review may be performed retrospectively. The degree and frequency of on-site monitoring shall be a function of the findings and outcomes of the earlier monitoring reviews.

It shall be the responsibility of the Local Cost Recovery Specialist to advise other pertinent organizational entities or individuals of the findings of the periodic monitoring reviews as deemed appropriate. At all times, however, the Local Cost Recovery Specialist should keep the local school district coordinator (for school based health services) advised of the monitoring activities and review results.

#### Technical Assistance

Based upon the findings of the periodic monitoring reviews performed by the Local Cost Recovery Specialist, technical assistance may be provided to the school based health services provider. The nature of the problems and/or deficiencies noted shall determine the level and type of technical assistance.

In all cases where formal technical assistance is determined necessary, the Local Cost Recovery Specialist shall develop a plan of action which identifies:

- The nature of the problem or the area of deficiency,

including extent of the problem/deficiency

- The recommended corrective action with specific activities to improve performance in the noted area
- Personnel involved in the correction of the problem area (e.g., Local Cost Recovery Specialist, Special Education Director, occupational therapist, local school district coordinator)
- Additional resources needed to take corrective action
- Estimated timetable to complete corrective action
- Intermittent reviews necessary to assess progress of corrective action

The technical assistance plan shall be reviewed with the local school district coordinator for the school based health services program. As deemed necessary, the Local Cost Recovery Specialist may forward a copy of the technical assistance plan to the Education Associate - Cost Recovery Project for review.

In addition to formal technical assistance, the Local Cost Recovery Specialist may determine that less structured assistance regarding minor problems or deficiencies is more appropriate. This type of technical assistance shall be based upon the individual needs of the school, practitioner, or other personnel from the school district. Informal technical assistance may include brief meetings with pertinent individuals, training sessions with a group or on a one-to-one basis, or a modification to an existing procedure.

#### VII. REIMBURSEMENT AND BILLING PROCEDURES

The DMAP shall adjudicate claims for a covered service provided to an eligible client or to a person who is later found to be eligible at the time he or she received the service according to timely filing and general service limitations indicated by the DMAP. To be eligible for payment, a service must:

- Be determined by prevailing community standards or customary practice and usage to:
  1. be medically necessary
  2. be appropriate and effective for the medical needs of the individual
  3. meet quality and timeliness standards
  4. be the most cost-effective health service available for the medical needs of the individual

- Represent an effective and appropriate use of DMAP funds
- Be within the service limits as specified in the Services Limitation & Exclusion section or Appendix B of this manual.
- Be personally furnished by qualified personnel types as specified in Section V, Staff Authorized to Provide Services, of this manual.

Enrolled providers of school based health services may

bill Medicaid for covered services using the locally assigned HCPCS procedure codes that appear in Appendix B of this manual.

#### Reimbursement

All services are provided on a one to one basis unless group or family services are specified in the treatment plan. Provision of services shall be consistent with information contained in the individual's treatment plan and/or IEP, as appropriate. Services not specified in the treatment plan of care shall not be reimbursed unless the services are emergency in nature or are specific nursing services which do not require a plan of care (e.g., EPSDT screen).

The date of service entered on the claim must be the date the service was actually provided to the individual or the evaluation was completed on the individual.

It is a requirement that claims to Medicaid be submitted no later than twelve (12) months from the date of service. If the date of service is over one year old, the claim for reimbursement will be denied. The provider should refer to the General Policy for additional information regarding claims submission and timeliness.

#### Billing Procedures and Claims Submission

School based health services providers may elect to bill Medicaid for reimbursement either manually or electronically (i.e. electronic claims submission). Providers may bill for any of the allowed services listed in Appendix B for eligible clients.

If providers elect to bill Medicaid in a manual fashion, the HCFA 1500 is the required claim form. Detailed instructions for the completion of the HCFA 1500 are issued by the DMAP's fiscal agent.

Providers are encouraged to submit claims for reimbursement (either manual billing forms or electronic claims submission) promptly and on a regular basis. Billing must be suspended for any service for which a progress note is not received within one month of due date. Billing must also be suspended for any service for which an annual assessment is not received within 3 months of due date. Billing may resume when documents are received.

#### Records Maintenance

As described in Section II of this manual the provider is responsible for maintaining records to substantiate a Medicaid claim. At a minimum, the records must be auditable and contain the following information on each eligible client:

- The date of service
- The individual's presenting problem (diagnosis)
- Referral and/or authorization for services
- Treatment/services rendered
- The specific amount, duration and type of service provided by a qualified professional/clinician.

These records should be retained for a minimum of five (5) years in order to comply with all State and Federal regulations and laws.

If a provider's records do not substantiate services paid for under the DMAP, as previously noted, the provider will be asked to refund to the DMAP any money received from the program for such non-substantiated service.

### **DIVISION OF PUBLIC HEALTH OFFICE OF DRINKING WATER**

Statutory Authority: 16 Delaware Code,  
Section 122(3)(c) (16 **Del.C.** 122(3)(c))

#### NOTICE OF PUBLIC HEARING

The Office of Drinking Water, Division of Public Health of the Department of Health and Social Services, will hold public hearings to discuss proposed revisions to the "State of Delaware Regulations Governing Public Drinking Water Systems". The changes incorporate new requirements from both the US Environmental Protection Agency and the Delaware General Assembly. The changes include revisions to the definition of a public water system, increased administrative penalty authority, mandatory fluoridation for municipal water systems, and the requirement for water systems serving more than 500 service connections to meet secondary (aesthetic) standards. The action also includes the deletion of interim primary maximum contaminant levels for several compounds.

These public hearings will be held on January 27, 1999 at 6:00 P.M. in the Conference Room, Artesian Water Company, 664 Churchmans Road, Newark, DE 19702, and at 1:00 P.M. January 28, 1999 in Room 309, Jesse S. Cooper Building, Federal and Water Streets, Dover, Delaware.

Copies of the proposed regulations are available for review by calling the following location:

Office of Drinking Water  
Jesse S. Cooper Building  
Federal and Water Streets  
Dover, Delaware 19901  
Phone: 302-739-5410

Anyone wishing to present oral comments at this hearing should contact Edward Hallock at (302) 739-5410 by January 22, 1999. Anyone wishing to submit written comments as a supplement to or in lieu of oral testimony should submit such comments by February 2, 1999 to:

Jeffrey Beaman, Hearing Officer  
Division of Public Health

PO Box 637

Dover, Delaware 19903

Summary of changes to "State of Delaware Regulations Governing Public Drinking Water Systems".

Attached are the revisions to the "State of Delaware Regulations Governing Public Drinking Water Systems". Deletions are identified by a strike through and additions are in bold. A summary of the changes follows.

Section 22.157 "Public Water System (PWS)" definition. The definition of a public water system has been changed to meet the new definition contained in the 1996 amendments to the Safe Drinking Water Act. In addition, we deleted two sentences that referenced consecutive water systems. These sentences are in conflict with the definition of a consecutive water system and are not necessary to the definition of a public water system.

Section 22.209 (E) Penalties. This section has been rewritten in order to comply with the 1996 amendments to the Safe Drinking Water Act administrative penalty requirements. The authority to increase the administrative penalty was contained in HB 427 passed by the General Assembly this year.

Section 22.601 (C) has been deleted in its entirety. This section is no longer necessary since the effective date for maintaining the maximum contaminant levels as passed. Section 22.601 (D) has been re-designated as (C).

Section 22.603 Fluoride (F) has been revised. A new paragraph (B) has been added to comply with SB 173 that mandates fluoridation of all municipal water systems.

22.801 Water System Classification has been re-titled Regulatory Classification for the purpose of adopting the requirements of HB427. This bill requires that Delaware Health & Social Services enforce secondary (aesthetic) standards on community water systems serving more than 500 service connections in Delaware. The changes made to this section are consistent with the intent of this section from prior years when secondary standards were regulated for larger water systems.

These changes reflect requirements of both the US Environmental Protection Agency (Sections 22.157 and 22.209 (E)) and the Delaware General Assembly (Sections 22.603 and 22.801). In addition, the change to Section 22.601 is made to clean up the regulations.

It is our intention to have these revisions forwarded to the Register of Regulations by December 15, 1998 for a January 1, 1999 publication. Following is our anticipated timeline.

December 15, 1998 – submitted to Register of Regulations

January 2, 1999 – publication in the Register of Regulations

Late January 1999 – hold public hearings

February 15, 1999 – submit final rule to Register of Regulations

March 1, 1999 – publication of final rule in Register of Regulations

March 11, 1999 – regulations become final.

STATE OF DELAWARE  
REGULATIONS GOVERNING  
PUBLIC DRINKING WATER SYSTEMS

**\* Please Note: Due to space limitations the table of contents is not being reprinted. The table of contents is available from the Department of Health and Social Services.**

SECTION 22.1 DEFINITIONS

22.101 "Action Level" means the concentration of lead or copper in water specified in Section 22.607A1a & b which determines, in some cases, the treatment requirements contained in Section 22.607 that a water system is required to complete.

22.102 "Alpha Particle" means a particle identical with a helium nucleus, emitted from the nucleus of a radioactive element.

22.103 "Approved" means approved by the Division.

22.104 "Best Available Technology (BAT)" means the best technology, treatment techniques, or other means which the Division finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration). For the purposes of setting maximum contaminant levels for synthetic organic chemicals, any BAT must be at least as effective as granular activated carbon.

22.105 "Beta Particle" means a particle identical with an electron, emitted from the nucleus of a radioactive element.

22.106 "Coagulation" means a process using coagulant chemicals and mixing by which colloidal and suspended materials are de-stabilized and agglomerated into flocs.

22.107 "Coliform Group" means all organisms considered in the coliform group as set forth in the current edition of Standard Methods for the Examination of Water and Waste Water prepared and published jointly by the American Public Health Association, American Water Works Association and Water Pollution Control Federation.

22.108 "Compliance Cycle" means the nine-year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle begins January 1, 1993 and ends December 31, 2001; the second begins January 1, 2002 and ends December 31, 2010, the third begins January 1, 2011 and ends December 31, 2019.

22.109 "Compliance Period" means a three-year calendar year period within a compliance cycle. Each

compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993 to December 31, 1995; the second from January 1, 1996 to December 31, 1998, and the third from January 1, 1999 to December 31, 2001.

22.110 "Confluent Growth" means a continuous bacterial growth covering the entire filtration area of a membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

22.111 "Consecutive Water Supply" means a public water system that obtains all of its water from, but is not owned or operated by, a public water system to which such Regulations apply and alters the purchased water by some type of treatment, resells the purchased water to its customer, or furnishes water to an interstate carrier. The Division may opt to accept a consecutive supply as a single system for monitoring purposes.

22.112 "Contaminant" means any physical, chemical, biological or radiological substance or matter in water.

22.113 "Conventional Filtration Treatment" means a series of processes including coagulation, flocculation, sedimentation and filtration resulting in substantial particulate removal.

22.114 "Corrosion Inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

22.115 "CT or CTcalc" means the product of the residual disinfectant concentration (C) (22.161) in milligrams per liter (mg/L) determined before or at the first customer, and the corresponding disinfectant contact time (T) (22.120) in minutes, i.e. "C" X "T". If a public water system applies disinfectants at more than one (1) point prior to the first customer, it must determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or total inactivation ratio. In determining the total inactivation ratio, the public water system must determine the residual disinfectant concentration of each disinfection sequence and corresponding contact time before any subsequent disinfection application point(s). CT99.9 is the CT value required for 99.9 percent (3-log) inactivation of Giardia lamblia cysts. The inactivation ratio is the CTcalc divided by the CT99.9 and the total inactivation ratio is the sum of the inactivation ratios for each disinfection sequence. A total inactivation ratio equal to or greater than 1.0 is assumed to provide a 3-log inactivation of Giardia lamblia cysts.

22.116 "Diatomaceous Earth Filtration" means a process resulting in substantial particulate removal in which a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and while the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the

filter cake.

22.117 "Direct Filtration" means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

22.118 "Direct Responsible Charge" means accountability for and performance of active, daily, on-site operational duties.

22.119 "Disinfectant" means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogens (disease causing organisms).

22.120 "Disinfectant Contact Time (T)" means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point before or at the point where residual disinfectant concentration (C) is measured. Where only one (1) "C" is measured, "T" is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at where residual disinfectant concentration (C) is measured. Where more than one (1) "C" is measured, "T" is for the first measurement of "C", the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first "C" is measured and for subsequent measurements of "C", the time in minutes that it takes for water to move from the previous "C" measurement point to the "C" measurement point for which the particular "T" is being calculated. Disinfectant contact time in pipelines must be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs must be determined by tracer studies or an equivalent demonstration.

22.121 "Disinfection" means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

22.122 "Division" means the Division of Public Health of the Department of Health and Social Services established by Title 29, Section 7904 (a), Delaware Code.

22.123 "Domestic or Other Non-Distribution System Plumbing Problem" means a coliform contamination problem in a public water system with more than one (1) service connection that is limited to the specific service connection from which the coliform positive sample was taken.

22.124 "Dose Equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences and biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements.

22.125 "Dwelling Unit" means one or more rooms

arranged for the use of one or more individuals as a single housekeeping unit with cooking, living, sanitary and sleeping facilities.

22.126 "Effective Corrosion Inhibitor Residual" means a concentration sufficient to form a passivating film on the interior walls of a pipe.

22.127 "Emergency Situation" means a condition in which the specific provisions of these Regulations cannot be met for a temporary period and which necessitates immediate action because of the potential danger to public health.

22.128 "Exemption" means an allowance to deviate from or to exceed a maximum contaminant level requirement or treatment technique requirement for a specific period of time (see Section 22.203). In order for a system to qualify for an exemption, the system must be in operation on the date of adoption of any maximum contaminant level or treatment technique requirement.

22.129 "Filtration" means a process for removing particulate matter from water by passage through porous media.

22.130 "First Draw Sample" means a one (1) liter sample of tap water, collected in accordance with Section 22.607G2b, that has been standing in plumbing pipes at least six (6) hours and is collected without flushing the tap.

22.131 "Flocculation" means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

22.132 "Gross Alpha Particle Activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

22.133 "Gross Beta Particle Activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

22.134 "Ground Water Under the Direct Influence of Surface Water" means any water beneath the surface of the ground with significant occurrence of insects or other microorganisms, algae, or large diameter pathogens such as Giardia lamblia, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions. Direct influence must be determined for individual sources in accordance with criteria established by the Division. The Division determination of direct influence may be based on site specific measurements of water quality and/or documentation of well construction characteristics and geology with field evaluation.

22.135 "Halogen" means one of the chemical elements chlorine, bromine or iodine.

22.136 "Health Hazard" means any condition, device or practice in the water supply system or its operation which creates, or may create, a danger to the health and well-being of the water consumer.

22.137 "Initial Compliance Period" means the first full three-year compliance period which begins at least 18 months after promulgation, except for the following contaminants: Dichloromethane; 1,2,4-Trichlorobenzene; 1,1,2-Trichloroethane; Benzo[a]pyrene; Dalapon; Di(2-ethylhexyl adipate); Di(2-ethylhexyl) phthalate; Dinoseb; Diquat; Endothall; Endrin; Glyphosate; Hexachlorobenzene; Hexachlorocyclopentadiene; Oxamyl (Vydate); Picloram; Simazine; 2,3,7,8-TCDD (Dioxin); Antimony; Beryllium; Cyanide; Nickel; and Thallium, initial compliance period means the first full three-year compliance period after promulgation for systems with 150 or more service connections (January 1993 - December 1995) and first full three-year compliance period after the effective date of regulation (January 1996 - December 1998) for systems having fewer than 150 service connections.

22.138 "Large Water System" means a water system that serves more than 50,000 persons.

22.139 "Lead Service Line" means a service line made of lead which connects the watermain to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

22.140 "Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

22.141 "Man-Made Beta Particle and Photon Emitters" means all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air or Water for Occupational Exposure, NBS Handbook 69, except the daughter products of thorium 232, uranium 235 and uranium 238.

22.142 "Maximum Contaminant Level (MCL)" means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

22.143 "Maximum Total Trihalomethane Potential (MTP)" means the maximum concentrations of total trihalomethanes produced in a given water containing a disinfectant residual after seven days at a temperature of 25°C or above.

22.144 "Medium Size Water System" means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

22.145 "Minor Monitoring Violation" means the failure of a public water system to collect all required water samples or the failure to follow the prescribed sampling procedure within the prescribed time frame.

22.146 "Near the First Service Connection" means at one (1) of the twenty (20) percent of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.

22.147 "Optimal Corrosion Control Treatment" means the corrosion control treatment that minimizes the lead and

copper concentrations at users' taps while insuring that the treatment does not cause the water system to violate any national primary drinking water regulations.

22.148 "Person" means any corporation, company, association, firm, municipally owned water utility, partnership, society and joint stock company, as well as any individual.

22.149 "Picocurie (pCi)" means the quantity of radioactive material producing 2.22 nuclear transformations per minute.

22.150 "Point of Disinfectant Application" means the point where the disinfectant is applied and water downstream of that point is not subject to recontamination by surface water runoff.

22.151 "Point of Entry Treatment Device" means a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

22.152 "Point of Use Treatment Device" means a treatment device applied to a single tap used for the purpose of reducing contaminants in the drinking water at that one (1) tap.

22.153 "Pollution" means the presence of anything in water which tends to degrade its quality so as to constitute a health hazard or impair the usefulness of the water.

22.154 "Potable Water" means water which is in compliance with all of the required drinking water standards specified in these Regulations, and is acceptable for human consumption.

22.155 "Primary Maximum Contaminant Level (PMCL)" means an MCL which involves a biological, chemical or physical characteristic of drinking water that may adversely affect the health of the consumer. This includes the MCLs for: coliform bacteria (includes total coliform and E.coli; antimony; arsenic; asbestos; barium; beryllium; cadmium; chromium; cyanide; fluoride; lead; mercury; nickel; nitrates; nitrites; total nitrate/nitrite selenium; thallium; turbidity; alachlor; aldicarb; aldicarb sulfone; aldicarb sulfoxide; atrazine; benzo (a) pyrene; carbofuran; chlordane; dalapon; di(2-ethylhexyl) adipate; di(2-ethylhexyl) phthalate; dibromochloropropane; dinoseb; diquat; 2,4-D; endothall; endrin; ethylenedibromide (EDB); glyphosate; heptachlor; heptachlor expoxide; hexachlorobenzene; hexachlorocyclopentadiene; lindane; methoxychlor; oxamyl (vydate); pentachlorophenol; picloram; polychlorinated biphenyls (PCBs); simazine; 2,3,7,8-TCDD (Dioxin); toxaphene; 2,4,5-TP silvex; total trihalomethanes; benzene; carbon tetrachloride; o-dichlorobenzene; p-dichlorobenzene; 1,2-dichloroethane, 1,1-dichloroethylene; cis-1,2-dichloroethylene; trans-1,2-dichloroethylene; dichloromethane; 1,2-dichloropropane; ethylbenzene; monochlorobenzene; styrene; tetrachloroethylene; toluene; 1,2,4-trichlorobenzene; 1,1,1-

trichloroethane; 1,1,2-trichloroethane; trichloroethylene; vinyl chloride; total xylenes and radioactivity (see Section 22.9).

22.156 "Protection by Adequate Construction, Treatment and Supervision" means:

A. Works which are of adequate capacity to meet the maximum demands without creating health hazards and which are located, designed and constructed to eliminate or prevent pollution.

B. Any one or any combination of the controlled processes of coagulation, sedimentation, absorption, filtration, disinfection or other processes appropriate to the sources of supply, which produce a water consistently meeting the requirements of these Regulations.

C. Conscientious operation of a public water supply by an individual in direct responsible charge who is acceptable to the Division, and meets the certification requirements of the Division at such time as these requirements are established.

22.157 "Public Water System (PWS)" means a water supply system for the provision to the public of ~~pipel~~ water for human consumption through pipes or other constructed conveyances either directly from the user's free flowing outlet or indirectly by the water being used to manufacture ice, foods and beverages or that supplies water for potable or domestic purposes for consumption in more than three dwelling units, or furnishes water for potable or domestic purposes to employees, tenants, members, guests or the public at large in commercial offices, industrial areas, multiple dwellings or semi-public buildings including, but without limitation, rooming and boarding houses, motels, tourist cabins, mobile home parks, restaurants, hospitals and other institutions, or offers any water for sale for potable domestic purposes. ~~For the purpose of this definition, consecutive water supplies which do not adversely affect the chemical, physical or bacteriological quality of the water are excluded. Such terms includes (1) any collection, treatment, storage and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.~~ Public water systems are classified as follows:

A. "Community Water System (CWS)" means a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents;

B. "Non-Transient Non-Community Water System (NTNCWS)" means a public water system that is not a community water system and that regularly serves at least twenty-five (25) of the same persons over six (6) months per year;

C. "Non-Community Water System (NCWS)" means a public water system which has at least fifteen (15)

service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year;

D. "Miscellaneous Public Water System (MPWS)" means a public water system that is neither community, non-community nor non-transient non-community.

22.158 "Radioactivity" means the spontaneous, uncontrollable disintegration of the nucleus of an atom with the emission of particles and rays.

22.159 "Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A millirem is one one-thousandth (1/1000) of a rem.

22.160 "Repeat Compliance Period" means any subsequent compliance period after the initial compliance period.

22.161 "Residual Disinfectant Concentration (C)" means the concentration of disinfectant measured in mg/L in a representative sample of water.

22.162 "Sanitary Survey" means a review of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of: evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing potable drinking water; or updating the inventory information. Sanitary surveys are classified as follows:

A. Class 1 - on-site review.

B. Class 2 - telephone review.

22.163 "Secondary Maximum Contaminant Level (SMCL)" means an MCL which involves a biological, chemical or physical characteristic of water that may adversely affect the taste, odor, color or appearance (aesthetics), which may thereby affect public confidence or acceptance of the drinking water. This includes the MCLs for aluminum, chloride, color, copper, corrosivity, foaming agents, iron, manganese, odor, pH, silver, sulfate, total dissolved solids and zinc.

22.164 "Sedimentation" means a process for removal of solids before filtration by gravity or separation.

22.165 "Service Connection" means a water line to a dwelling unit or building.

22.166 "Service Line Sample" means a one (1) liter sample of water collected in accordance with Section 22.607G2c that has been standing for at least six (6) hours in a service line.

22.167 "Single Family Structure" means a building constructed as a single family residence that is currently used as either a residence or a place of business.

22.168 "Slow Sand Filtration" means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 meters per hour) resulting in substantial particulate removal by physical and biological mechanisms.

22.169 "Small Water System" means a water system that served 3,300 persons or fewer.

22.170 "Source" means the place from which a system obtains its water. This may be either from underground or from the surface. Surface water may include rivers, lakes, reservoirs, springs, impoundments or a body of water with a surface exposed to the atmosphere.

22.171 "Standard Sample" means the sample size for bacteriological testing and shall consist of:

A. For the fermentation tube test, five (5) standard portions of either twenty (20) milliliters (ml) or one hundred (100) mL.

B. For the membrane filter technique, not less than one hundred (100) mL.

22.172 "State Board of Health" means the agency defined in Title 29, Section (b), Delaware Code.

22.173 "Supplier of Water" means any person who owns or operates a public water system.

22.174 "Surface Water" means all water which is open to the atmosphere and subject to surface runoff.

22.175 "System with a Single Service Connection" means a system which supplies drinking water to consumers via a single service line.

22.176 "Too Numerous to Count" means that the total number of bacterial colonies exceeds two hundred (200) on a forty-seven (47) millimeter (mm) diameter membrane filter used for coliform detection.

22.177 "Total Coliform-Positive Sample" means any Presence-Absence (P-A) Coliform Test with a result of present (P), any Minimal Medium ONPG-MUG (MMO-MUG) Test with a result of P, any Membrane Filter Technique test with a result of one (1) or more colonies per one hundred (100) ml, or any Multiple Tube Fermentation test with a result of one (1) or more positive tubes.

22.178 "Total Trihalomethanes (TTHMs)" means the sum of the concentration in milligrams per liter of trihalomethane compounds [trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform)] rounded to two significant figures.

22.179 "Treatment Technique Requirement" means a requirement which specifies for a contaminant a specific treatment technique(s) demonstrated to the satisfaction of the Division to lead to a reduction in the level of such contamination sufficient to comply with these Regulations.

22.180 "Trihalomethanes (THMs)" means one of the family of organic compounds, named as derivatives of methane, wherein three (3) of the four (4) hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

22.181 "Turbidity" means a measure of the clarity or cloudiness of water in Nephelometric Turbidity Units (NTUs).

22.182 "Variance" means an allowance to deviate

from or to exceed an MCL requirement or treatment technique requirement when necessary treatment techniques are not available (see Section 22.202).

22.183 "Virus" means a virus of fecal origin which is infectious to humans by waterborne transmission.

22.184 "Vulnerable" means subject to contamination, a determination which shall be made by the Division based on previous monitoring results, the number of persons served by the public water system, the proximity of a smaller system to a larger system, the proximity to commercial or industrial use, disposal or storage of volatile synthetic organic compounds (VOCs), and the protection of the water source(s).

22.185 "Waterborne Disease Outbreak" means the significant occurrence of an acute infectious illness, epidemiologically associated with the ingestion of water from a public water system which is deficient in treatment, as determined by the Division.

22.186 "Water Distribution System" means the pumps, piping and storage facilities from the source(s)/treatment plant to the property line of the ultimate consumer.

22.187 "Water Supply System" means the structures, equipment and appurtenances for collection, treatment, storage and distribution of potable water from the source of supply to the free-flowing outlet of the ultimate consumer.

## SECTION 22.2 GENERAL PROVISIONS

22.201 "Application": These regulations shall apply to all public water systems in the State of Delaware.

22.202 "Variance:

A. The State Board of Health may grant one or more variances to any PWS from:

1. Any requirement respecting a MCL of an applicable primary or secondary drinking water requirement upon finding that:

a. Because of characteristics of the raw water sources which are reasonably available to the system, the system cannot meet the requirements respecting the MCLs of such drinking water regulations despite application of the best technology, treatment techniques or other means, which the State Board of Health finds are generally available (taking costs into consideration) and;

b. The granting of a variance will not result in an unreasonable risk to the health of persons served by the PWS.

2. Any requirement of a specified treatment technique of an applicable primary or secondary drinking water requirement upon a finding that the PWS applying for the variance has demonstrated that such treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of such system.

B. A supplier of water may request the granting of

variance for a PWS by submitting a written request to the State Board of Health. Suppliers of water may submit a joint request for variances when they seek similar variances under similar circumstances. Any written request for a variance or variances shall include the following information:

1. The nature and duration of the variance requested;

2. Relevant analytical results of water quality sampling of the system, including results of relevant tests conducted pursuant to the requirements of the PMCLs;

3. For any request made under this Section, the following is required:

a. Explanation in full and evidence of the best available treatment technology and techniques.

b. Economic and legal factors relevant to ability to comply.

c. Analytical results of raw water quality relevant to the variance requested.

d. A proposed compliance schedule, including the date each step toward compliance will be achieved. Such schedule shall include as a minimum the following dates:

1. Date by which arrangement for alternative raw water source or improvement of existing raw water source will be completed.

2. Date of initiation of the connection of the alternative raw water source of improvement of existing raw water source will be completed.

3. Date by which final compliance is to be achieved.

e. A plan for the provision of safe drinking water in the case of an excessive rise in the contaminant level for which the variance is requested.

f. A plan for interim control measures during the effective period of variance.

4. A statement that the water supplier will perform monitoring and other reasonable requirements prescribed by the State Board of Health as a condition to the variance.

5. Other information, if any, believed to be pertinent by the applicant, or such information as the State Board of Health may require.

C. The State Board of Health shall notify the applicant in writing of the disposition of the variance request within ninety (90) days of receipt of request.

1. If the State Board of Health decides to deny the application for a variance, it shall notify the applicant of its intention to issue a denial. Such notice shall include a statement of reasons for the proposed denial, and shall offer the applicant an opportunity to present, within thirty (30) days of receipt of the notice, additional information or argument to the State Board of Health. It shall make a final determination on the request within thirty (30) days after receiving any such additional information or argument. If no

additional information or argument is submitted by the applicant, the application shall be denied.

2. If the State Board of Health proposes to grant a variance request submitted pursuant to this Section, it shall notify the applicant of its decision in writing. Such notice shall identify the variance, the facility covered and conditions of the variance and shall specify the period of time for which the variance will be effective.

D. No variances from the requirements of Section 22.51 (Microbiological requirements) shall be permitted.

E. No variances from the requirements of Section 22.10 (Surface Water Treatment Rule) shall be permitted.

#### 22.203 Exemption

A. The State Board of Health may exempt any PWS from:

1. Any requirement respecting an MCL or any treatment technique requirement or from both, of an applicable primary drinking water regulation upon finding that:

a. Due to compelling factors (which may include economic factors) the PWS is unable to comply with such contaminant level or treatment technique requirement;

b. The PWS was in operation on the effective date of such contaminant level or treatment technique requirement and;

c. The granting of the exemption will not result in an unreasonable risk to health.

B. A supplier of water may request the granting of any exemption by submitting a request in writing to the State Board of Health. Suppliers of water may submit a joint request for exemptions when they seek similar exemptions under similar circumstances. Any written request for an exemption or exemptions shall include the following information:

1. The nature and duration of the exemption requested.

2. Relevant analytical results of water quality sampling of the system, including result of relevant tests conducted pursuant to the requirements of the Regulations.

3. Explanation of the compelling factors such as time or economic factors which prevent such system from achieving compliance.

4. A proposed compliance schedule, including the date when each step toward compliance will be achieved.

5. Other information, if any, believed to be pertinent by the applicant or such information as the State Board of Health may require.

C. The State Board of Health shall notify the applicant in writing of the disposition of the exemption request within ninety (90) days of receipt of request.

1. If the State Board of health decides to deny the application for exemption, it shall notify the applicant of its intention to issue a denial. Such notice shall include a

statement of reasons for the proposed denial, and shall offer the applicant an opportunity to present within thirty (30) days of receipt of the notice additional information or argument to the State Board of Health. It shall make a final determination on the request within thirty (30) days after receiving any such additional information or argument. If no additional information or argument is submitted by the applicant, the application shall be denied.

2. If the State Board of Health grants an exemption request submitted pursuant to this Section, it shall notify the applicant of its decision in writing. Such notice shall provide that the exemption will be terminated when the system comes into compliance with the applicable regulations, and may be terminated upon a finding by the State Board of Health that the system has failed to comply with any requirements of a final schedule.

a. The State Board of Health shall propose a schedule for:

1. Compliance (including increments of progress) by the public water system with each contaminant level requirement and treatment technique requirement covered by the exemption and;

2. Implementation by the public water system of such control measures as the State Board of Health may require for each contaminant covered by the exemption.

b. The schedule shall be prescribed by the State Board of Health within one (1) year after the granting of the exemption subsequent to provision of opportunity for hearing pursuant to Section 22.205. An exemption from a MCL or a treatment technique requirement if granted to a PWS is done so for a specific period of time. If any of the MCLs or treatment technique requirements are revised, then all exemptions from these revised standards shall terminate seven (7) years from the effective date of revision for single PWSs and nine (9) years for regional PWSs.

D. No exemptions from the requirements of Section 22.51 (Microbiological requirements) shall be permitted.

E. No exemptions from the requirements of Section 22.10 (Surface Water Treatment Rule) shall be permitted.

#### 22.204 Variances and Exemptions from MCLs for VOCs

A. The Division hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the MCLs for VOCs: removal using packed tower aeration; removal using granular activated carbon (except for Vinyl Chloride), removal using oxidation or other method(s) approved by the Division. See Section 22.63 for a listing of the best available technologies.

B. The Division shall require CWSs and NTNCWSs to install and/or use any of the treatment methods identified in paragraph A of this Section as a condition for granting a variance or exemption except as provided in paragraph C of this Section. If, after the system's installation of the

treatment method, the system cannot meet the MCL, the system shall be eligible for a variance or exemption under the provisions of Section 22.202 or 22.203 respectively.

C. If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in paragraph A of this Section would only achieve a minimal reduction in the contaminants, the Division may issue a schedule of compliance that requires the system being granted the variance or exemption to examine other treatment methods as a condition of obtaining the variance or exemption.

D. If the Division determines that a treatment method identified in paragraph C of this Section is technically feasible, the Division may require the system to install and/or use that treatment method in connection with a compliance schedule issued under the provisions of Section 22.202 or 22.203. The Division's determination shall be based on studies by the system and other relevant information.

22.205 Public Hearing: Before a variance or exemption granted pursuant to Sections 22.202 and 22.203 may take effect, the State Board of Health shall provide notice and opportunity for public hearing on the variance or exemption. A notice given pursuant to the preceding sentence may cover the granting of more than one variance or exemption and hearing held pursuant to such notice shall include each of the variances and exemptions covered by the notice. Public notice of an opportunity for hearing on a variance or exemption shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed variance or exemption. Notification shall include posting of a notice in the principal post office of each municipality or area served by the PWS and publishing of a notice in a newspaper or newspapers or general circulation in the area served by the PWS. Such notice shall include a summary of the proposed variance or exemption and shall inform interested persons that they may request a public hearing on the proposed variance or exemption. Requests must be submitted in writing to the State Board of Health within thirty (30) days after issuance of the public notices. Information needed in the formal hearing request will be listed on the public notice. Upon receipt of one or more formal hearings requests, the State Board of Health will give notice as set forth in this Section, of any hearings to be held. Notice shall also be sent to the person or persons requesting the hearing. Notice shall include pertinent information on the subject to be covered along with dates, times and telephone numbers of agencies and people involved. The disposition of the variance or exemption shall become effective thirty (30) days after notice of opportunity for hearing is given, if no request for hearing submitted and the State Board of Health does not determine to hold a public hearing on its own motion.

22.206 Right of Entry: The Director of the Division or his/her designee shall have the right of entry, during reasonable hours and in a reasonable manner and without fee or hindrance, for the purpose of conducting a sanitary survey and/or sampling of any public water supply and all water furnished by any public water supplier, whether or not the Division has evidence that the system is in violation of an applicable legal requirement.

22.207 Prohibiting Water Usage: The Division may prohibit the use of sources of water which after treatment do not provide water conforming to the standards established by these Regulations or which for any reason may pose a threat to the public's health.

22.208 Separability: If any provision of these Regulations is held invalid, such invalidity shall not affect other provisions which can be given effect without the invalid provision.

22.209 Enforcement of Regulations: All PWSs must be operated in compliance with the requirements as set forth in these Regulations.

A. Notice: Whenever the Director of the Division, or his/her appointed representative, has reason to believe that a violation of any of these Regulations has occurred or is occurring, the Division shall notify the alleged violator. Such notice shall be in writing, may be sent by Certified Mail, or hand delivered, shall cite the Regulation or Regulations that are allegedly being violated, and shall state the facts which form the basis for believing that the violation has occurred or is occurring.

B. Orders: Notice of a violation may be accompanied by an order that requires that certain corrective action be taken. The order shall be signed by the Director or his/her designee or any of his/her appointed representatives and may require:

1. The immediate cessation or correction of the violation.
2. The acquisition or use of additional equipment, supplies or personnel to insure that the violation does not recur.
3. The submission of a plan to prevent future violations to the Division for review and approval.
4. The submission of an application for a variance or exemption.
5. Any other corrective action deemed necessary for proper compliance with the Regulations including interim remedies pending correction of violations.

C. Hearing Request: Any supplier of water who receives an order from the Division may submit a request for a hearing to the State Board of Health to contest the order.

D. Compliance with Effective Orders: Should any public water supplier fail to comply with any of these

Regulations, the State Board of Health may apply to an appropriate court for an injunction or other legal process to prevent or stop any practice which is in violation of these regulations.

E. Penalties: ~~Any person who neglects or fails to comply with these Regulations shall be subject to provisions under 16 Del. C. §107. The Secretary shall have the authority to impose an administrative penalty upon any public water system that violates water quality standards pursuant to Title 16, Chapter 1, § 122(3)(C). The administrative penalty shall be as follows:~~

1. For systems serving a population of more than 10,000 people, not less than \$1,000 nor more than \$10,000 per day per violation; and

2. For any other system, the administrative penalty shall be not less than \$100 nor more than \$10,000 per day per violation.

22.210 Emergency Orders: The Director of the Division or his/her appointed representative may issue emergency orders in any case where there is an imminent danger to the health of the public resulting from the operation of any waterworks or the source of a water supply. An emergency order may be communicated by the best practical notice under the circumstances, and is effective immediately upon receipt. The order may state any requirements necessary to remove the danger to the health of the public, including the immediate cessation of the operation of the PWS. Emergency orders shall be effective for a period not exceeding sixty (60) days at the determination of the Director of the Division or his/her representative. Should any public water supplier fail to comply with an emergency order, the State Board of Health may apply to an appropriate court for an injunction or other legal process to prevent or stop any practice which is in violation of these Regulations.

22.211 Plans and Specifications: No person shall construct a new PWS or alter an existing PWS until two (2) copies of plans and specifications have been submitted to and approved by the Division. Whenever it is discovered that either of the above are occurring without such approval, the Director of the Division may order the owner, supplier of water or contractor to immediately stop the work and submit plans and specifications to the Division. After the submittal, any part of the system that has already been installed and is not in compliance shall be removed, altered or replaced in order to achieve compliance. Plans and specifications shall be on paper no larger than 30" x 42". Within thirty (30) days of receipt of plans and specifications, the Division shall notify the person who submitted the plans and specifications if they have been approved or disapproved. Such notice shall specify any conditions of approval or any reasons for disapproval. Approvals are valid for one (1) year and construction shall begin within that time. All construction

shall be in accordance with the approved plans and all conditions listed in the Certificate of Approval.

22.212 Siting Requirements: Before any person may enter into a financial commitment for or initiate construction of a new PWS or increase the capacity of an existing PWS, he shall notify the Division and, to the extent practicable, avoid locating part or all of the new or expanded facility at a site which:

A. Is subject to a significant risk from earthquakes, floods, fires or other disasters which could cause a breakdown of the PWS or a portion thereof or;

B. Except for intake structures, is within the floodplain of a one hundred (100) year flood or is lower than any recorded high tide where appropriate records exist.

22.213 Approved Laboratory: For the purpose of determining compliance with Sections 22.5, 22.6, 22.7 and 22.9, samples may be considered only if they have been analyzed by the Division, EPA, or an approved laboratory, except that measurements for turbidity, free chlorine residual, temperature and pH may be performed by any person acceptable to the Division.

22.214 Quality: Drinking water shall not contain impurities in concentrations which may be hazardous to the health of the consumers. Substances used in its treatment shall not remain in the water in concentrations greater than required by good practice. Substances which may have deleterious physiological effects, or for which physiological effects are not known, shall not be introduced into the system in a manner which would permit them to reach the consumer.

22.215 Required Sampling, Monitoring or Analyses: In any case where the Division does not perform sampling, monitoring or analyses required by these Regulations, the supplier of water shall be responsible for performing this sampling, monitoring or analyses.

22.216 Date of Effect: These Regulations shall become effective on December 10, 1993.

### SECTION 22.3 SOURCE AND PROTECTION

22.301 Water Source Desirability: Drinking water shall be obtained from the most desirable source which is feasible, and efforts must be made to prevent or control pollution of the source. If the source fails to meet the bacteriological standards of Section 22.5 and is not already disinfecting pursuant to Section 22.802, it may be required to do so in order to meet the bacteriological standards.

22.302 Sanitary Surveys: Sanitary surveys shall be made by the Division in order to locate and identify health hazards which might exist in the water supply system. The manner

and frequency of making these surveys, and the rate at which discovered health hazards are to be removed, shall be in accordance with a program approved by the Division.

22.303 Approval of Water Supplies: Approval of water supplies shall be dependent in part upon:

A. Enforcement of rules and regulations to prevent development of health hazards;

B. Adequate protection of the water quality throughout all parts of the system, as demonstrated by sanitary surveys;

C. Proper operation of the water supply system under the responsible charge of personnel whose qualifications meet the certification requirements of the Division at such time as these requirements are established;

D. Adequate capacity to meet anticipated peak demands while maintaining not less than twenty-five (25) pounds per square inch (psi) and not more than one hundred (100) psi at ground level at all points in the water distribution system and;

E. Records of laboratory examinations showing consistent compliance with the water quality requirements of these Regulations.

22.304 Protection of Water: Water delivered to every consumer by any public water supplier shall be so protected by natural means, by proper constructions or by treatment so as to consistently equal or exceed the requirements herein established.

22.305 Monitoring Water Quality: Quality of water delivered by any public water supplier shall be continuously and/or periodically monitored in accordance with requirements herein established or in accordance with such monitoring water system of equal or greater effect as may be proposed by a public water supplier for its own use, subject to Division approval.

22.306 Responsibility: For the purpose of application of these Regulations, the supplier of water shall be responsible for the water quality at the user's free flowing outlet except for turbidity and VOCs, which are measured at a representative entry point(s) to the water distribution system.

#### SECTION 22.4 REPORTING, PUBLIC NOTIFICATION AND RECORD MAINTENANCE

##### 22.40 Reporting

22.401 Results of Test, Measurement or Analysis: Except where a shorter period is specified in this part, the supplier of water shall report to the Division the results of any test, measurement or analysis required by this part within:

A. The first ten (10) days following the month in which the result is received, or

B. The first ten (10) days following the end of the required monitoring period as stipulated by the Division, whichever of these is shortest.

22.402 Failure to Comply with a PMCL: Unless otherwise stipulated, the supplier of water shall report to the Division within forty-eight (48) hours the failure to comply with any Primary Drinking Water Regulations (including failure to comply with monitoring requirements).

22.403 Analysis Performed by Division of Public Health Laboratory: The supplier of water is not required to report analytical results to the Division in cases where an approved laboratory performs the analyses and reports the results directly to the Division.

22.404 Reporting of Unregulated Contaminants: The owner or operator of a CWS or NTNCWS who is required to monitor under Section 22.621, shall send a copy of the results of such monitoring to the Division within thirty (30) days of receipt and any public notice issued under Section 22.416 to the Division.

22.405 Reporting by Surface Water Systems: A PWS that uses a surface water source or a ground water source under the direct influence of surface water and provides filtration treatment must report monthly to the Division the information specified in this paragraph, beginning June 29, 1993.

A. Turbidity measurements must be reported within ten (10) days after the end of each month the system serves water to the public. Information that must be reported includes:

1. The total number of filtered water turbidity measurements taken during the month.

2. The number and percentage of filtered water turbidity measurements taken during the month which are less than or equal to the turbidity limits for the filtration technology being used.

3. The date and value of any turbidity measurements taken during the month which exceed five (5) NTU.

B. Disinfection information must be reported to the Division within ten (10) days after the end of each month the system serves water to the public. Information that must be reported includes:

1. For each day, the lowest measurement of residual disinfectant concentration in mg/L in water entering the distribution system.

2. The date and duration of each period when the residual disinfectant concentration in water entering the distribution system fell below 0.3 mg/L and when the

Division was notified of the occurrence.

3. The following information on the samples taken in the distribution system in conjunction with total coliform monitoring:

- a. Number of instances where the residual disinfectant concentration is measured;
- b. Number of instances where the residual disinfectant concentration is not measured but heterotrophic bacteria plate count (HPC) is measured;
- c. Number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured;
- d. Number of instances where no residual disinfectant concentration is detected and where HPC is greater than 500/ml;
- e. Number of instances where the residual disinfectant concentration is not measured and HPC is greater than 500/ml;
- f. For the current and previous month the system serves water to the public, the value of "V" in the following formula:

$$V = \frac{c + d + e}{a + b} \times 100$$

where: a = number of instances where the residual disinfectant concentration is measured;

n = number of instances where the residual disinfectant concentration is not measured but HPC is measured;

c = number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured;

d = number of instances where no residual disinfectant concentration is detected and where the HPC is >500/ml; and e = number of instances where the residual disinfectant concentration is not measured and HPC is >500/ml.

g. If the Division determines, based on site-specific considerations, that a system has no means for having a sample transported and analyzed for HPC by an approved laboratory within the requisite time and temperature conditions, and that the system is providing adequate disinfection in the distribution system, the requirements of paragraph B.3.a-f of this Section do not apply.

4. A system need not report the data listed in paragraph B.1. of this Section if all the data listed in paragraphs B.1.-3. of this Section remain on file at the system and the Division determines that the system has submitted all the information required by paragraphs B.1.-3. of this Section for the last twelve (12) months.

C. Each system, upon discovering that a waterborne disease outbreak potentially attributable to that water system

has occurred, must report that occurrence to the Division as soon as possible, but no later than by the end of the next business day. If at any time the turbidity exceeds five (5) NTU, the system must inform the Division as soon as possible, but no later than the end of the next business day. If at any time the residual falls below 0.3 mg/L in the water entering the distribution system, the system must notify the Division as soon as possible, but no later than by the end of the next business day. The system must also notify the Division by the end of the next business day whether or not the residual was restored to at least 0.3 mg/L within four (4) hours.

22.406 Reporting of Chemical Overfeed Incidents or Unusual Events: It is the responsibility of the owner and/or the operator of a Public Water System to report to the Division, within 24 hours, any incidents of chemical overfeed and/or unusual events.

#### 22.41 Public Notification

22.411 Circumstances for Public Notification: It shall be the duty and responsibility of a water supply owner to give public notification under any of the following circumstances:

- A. When any applicable PMCL has been exceeded.
- B. Violation of the PMCL for total coliforms, when fecal coliforms or E. coli are present in the water distribution system.
- C. Failure to comply with an established treatment technique.
- D. Failure to comply with the requirements of any schedule prescribed pursuant to a PMCL variance or exemption.
- E. The water supply has been granted or has in effect a variance or exemption from an applicable PMCL variance or exemption.
- F. Failure to comply with monitoring requirements.
- G. Failure to comply with an applicable testing procedure.
- H. Following notification by the Division of any violation of these Regulations which stipulates public notification.

#### 22.412 Content of a Public Notice

- A. Public notice given pursuant to Section 22.411 shall be written in a manner reasonably designed to fully inform the users of the PWS of the reasons for the notice.
- B. The public notice shall:
  1. Be conspicuous.
  2. Disclose all material facts regarding the subject.
  3. Disclose the nature of the problem.
  4. When appropriate, provide a clear statement that a PMCL has been exceeded.

5. When appropriate, describe any preventive measures that should be taken by the public.

6. State any potential adverse health affects.

7. State the population at risk.

8. State the necessity for seeking alternate water supplies, if any.

9. State preventive measures the consumer should take until the violation is corrected.

10. Include the phone number of the owner, operator, or designee of the public water system as a source of additional information concerning the notice.

11. Where appropriate, be multi-lingual.

C. The public notice shall not:

1. Use unduly technical language.

2. Use unduly small print.

3. Use any other methods which would frustrate the purpose of the notice.

D. The public notice may include:

1. A balanced explanation of the significance or seriousness to the public health of the subject of the notice.

2. A fair explanation of steps taken by the system to correct any problem.

3. The results of any additional sampling.

E. Mandatory Health Effects Language: When providing the information on potential adverse health effects required by B.6 of this Section in notices of violations of MCLs or treatment technique requirements, or notices of the granting or the continued existence of exemptions or variances, or notices of failure to comply with a variance or exemption schedule, the owner or operator of a PWS must include the following mandatory language specific to each contaminant:

1. Microbiological Contaminants: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that the presence of microbiological contaminants are a health concern at certain levels of exposure. If water is inadequately treated, microbiological contaminants in that water may cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set enforceable requirements for treating drinking water to reduce the risk of these adverse health effects. Treatment such as filtering and disinfecting the water removes or destroys microbiological contaminants. Drinking water which is treated to meet EPA requirements is associated with little to none of this risk and should be considered safe.

2. Total Coliforms: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that the presence of total coliforms is a possible health concern. Total coliforms are

common in the environment and are generally not harmful themselves. The presence of these bacteria in drinking water, however, generally is a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for total coliforms to reduce the risk of these adverse health effects. Under this standard, no more than 5.0 percent of the samples collected during the month can contain these bacteria, except that systems collecting fewer than forty (40) samples/month that have one (1) total coliform positive sample per month are not violating the standard. Drinking water which meets this standard is usually not associated with a health risk from disease-causing bacteria and should be considered safe.

3. Fecal Coliforms/E. coli: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that the presence of fecal coliforms or E. coli is a serious health concern. Fecal coliforms and E. coli are generally not harmful themselves, but their presence in drinking water is serious because they usually are associated with sewage or animal wastes. The presence of these bacteria in drinking water is generally a result of a problem with water treatment or the pipes which distribute the water, and indicates that the water may be contaminated with organisms that can cause disease. Disease symptoms may include diarrhea, cramps, nausea, and possibly jaundice, and associated headaches and fatigue. These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water. EPA has set an enforceable drinking water standard for fecal coliforms and E. coli to reduce the risk of these adverse health effects. Under this standard, all of the drinking water samples must be free of these bacteria. Drinking water which meets this standard is associated with little or none of this risk and should be considered safe. State and local health authorities recommend that consumers take the following precautions: (To be inserted by the public water supplier upon direction of the Division).

4. Antimony: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that antimony is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in soils, ground water and surface waters and is often used in the flame retardant industry. It is also used in ceramics, glass, batteries, fireworks and explosives. It may get into drinking water through natural weathering of rock, industrial production, municipal waste disposal or manufacturing

processes. This chemical has been shown to decrease longevity, and altered blood levels of cholesterol and glucose in laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for antimony a 0.006 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to antimony.

5. Asbestos: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that asbestos fibers greater than 10 micrometers in length are a health concern at certain levels of exposure. Asbestos is a naturally occurring mineral. Most asbestos fibers in drinking water are less than 10 micrometers in length and occur in drinking water from natural sources and from corroded asbestos-cement pipes in the distribution system. The major uses of asbestos were in the production of cements, floor tiles, paper products, paint, and caulking; in transportation-related applications; and in the production of textiles and plastics. Asbestos was once a popular insulating and fire retardant material. Inhalation studies have shown that various forms of asbestos have produced lung tumors in laboratory animals. The available information on the risk of developing gastrointestinal tract cancer associated with the ingestion of asbestos from drinking water is limited. Ingestion of intermediate-range chrysotile asbestos fibers greater than 10 micrometers in length is associated with causing benign tumors in male rats. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for asbestos at 7 million long fibers per liter to reduce the potential risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to asbestos.

6. Barium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that barium is health concern at certain levels of exposure. This inorganic chemical occurs naturally in some aquifers that serve as sources of ground water. It is also used in oil and gas drilling muds, automotive paints, bricks, tiles and jet fuels. It generally gets into drinking water after dissolving from naturally occurring minerals in the ground. This chemical may damage the heart and cardiovascular system, and is associated with high blood pressure in laboratory animals such as rats exposed to high levels during their lifetimes. In humans, EPA believes that effects from barium on blood pressure should not occur below 2 parts per million (ppm) in drinking water. EPA has set the drinking water standard for barium at 2 parts per million (ppm) to protect against the risk of these adverse

health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to barium.

7. Beryllium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that beryllium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in soils, ground water and surface waters and is often used in electrical equipment and electrical components. It generally gets into water from runoff from mining operations, discharge from processing plants and improper waste disposal. Beryllium compounds have been associated with damage to the bones and lungs and induction of cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. There is limited evidence to suggest that beryllium may pose a cancer risk via drinking water exposure. Therefore, EPA based the health assessment on noncancer effects with an extra uncertainty factor to account for possible carcinogenicity. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for beryllium at 0.004 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to beryllium.

8. Cadmium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that cadmium is a health concern of certain levels of exposure. Food and smoking of tobacco are common sources of general exposure. This inorganic metal is a contaminant in the metals used to galvanize pipe. It generally gets into water by corrosion of galvanized pipes or by improper waste disposal. This chemical has been shown to damage the kidney in animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amount of this chemical during working careers also suffered damage to the kidney. EPA has set the drinking water standard for cadmium at 0.005 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to cadmium.

9. Chromium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that chromium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in the electroplating of metals. It generally gets into water from runoff from old mining operations and improper waste disposal from plating operations. This chemical has been shown to damage the kidney, nervous system, and the circulatory system of

laboratory animals such as rats and mice when the animals are exposed at high levels. Some humans who were exposed to high levels of this chemical suffered liver and kidney damage, dermatitis and respiratory problems. EPA has set the drinking water standard for chromium at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to chromium.

10. Copper: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that copper is a health concern at certain exposure levels. Copper, a reddish-brown metal, is often used to plumb residential and commercial structures that are connected to water distribution systems. Copper contaminating drinking water as a corrosion by-product occurs as the result of the corrosion of copper pipes that remain in contact with water for a prolonged period of time. Copper is an essential nutrient, but at high doses it has been shown to cause stomach and intestinal distress, liver and kidney damage, and anemia. Persons with Wilson's disease may be at a higher risk of health effects due to copper than the general public. EPA's national primary drinking water regulation requires all public water systems to install optimal corrosion control to minimize copper contamination resulting from the corrosion of plumbing materials. Public water systems serving 50,000 people or fewer that have copper concentrations below 1.3 parts per million (ppm) in more than 90% of tap water samples (the EPA "action level") are not required to install or improve their treatment. Any water system that exceeds the action level must also monitor their source water to determine whether treatment to remove copper in source water is needed.

11. Cyanide: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that cyanide is a health concern at certain levels of exposure. This inorganic chemical is used in electroplating, steel processing, plastics, synthetic fabrics and fertilizer products. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the spleen, brain and liver of humans fatally poisoned with cyanide. EPA has set the drinking water standard for cyanide at 0.2 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meet the EPA standard is associated with little to none of this risk and should be considered safe with respect to cyanide.

12. Lead: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lead is a health concern at certain exposure levels. Materials that contain lead have frequently been used in the construction of water supply distribution systems, and plumbing systems in private homes and other buildings. The most commonly found materials include

service lines, pipes, brass and bronze fixtures, and solders and fluxes. Lead in these materials can contaminate drinking water as a result of the corrosion that takes place when water comes into contact with those materials. Lead can cause a variety of adverse health effects in humans. At relatively low levels of exposure, these effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning abilities of children, and slight increases in the blood pressure of some adults. EPA's national primary drinking water regulation requires all public water systems to optimize corrosion control to minimize lead contamination resulting from the corrosion of plumbing materials. Public water systems serving 50,000 people or fewer that have lead concentrations below 15 parts per billion (ppb) in more than 90% of tap water samples (the EPA "action level") have optimized their corrosion control treatment. Any water system that exceeds the action level must also monitor their source water to determine whether treatment to remove lead in source water is needed. Any water system that continues to exceed the action level after installation of corrosion control and/or source water treatment must eventually replace all lead service lines contributing in excess of 15 (ppb) of lead to drinking water. Any water system that exceeds the action level must also undertake a public education program to inform consumers of ways they can reduce their exposure to potentially high levels of lead in drinking water.

13. Mercury: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that mercury is a health concern at certain levels of exposure. This inorganic metal is used in electrical equipment and some water pumps. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the kidney of laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for mercury at 0.002 parts per million (ppm) to protect against the risk for these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to mercury.

14. Nickel: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nickel poses a health concern at certain levels of exposure. This inorganic metal occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products. It generally gets into water from mining and refining operations. This chemical has been shown to damage the heart and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. EPA has set the drinking water standard at 0.1 parts per million (ppm) for nickel to protect against the risk of these adverse effects. Drinking water

which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nickel.

15. Nitrate: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrate poses an acute health concern at certain levels of exposure. Nitrate is used in fertilizer and is found in sewage and wastes from human and/or farm animals and generally gets into drinking water from those activities. Excessive levels of nitrate in drinking water have caused serious illness and sometimes death in infants under six months of age. The serious illness in infants is caused because nitrate is converted to nitrite in the body. Nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly in infants. In most cases, health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. The purpose of this notice is to encourage parents and other responsible parties to provide infants with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. EPA has set the drinking water standard at 10 parts per million (ppm) for nitrate to protect against the risk of these adverse effects. EPA has also set a drinking water standard for nitrite at 1 ppm. To allow for the fact that the toxicity of nitrate and nitrite are additive, EPA has also established a standard for the sum of nitrate and nitrite at 10 ppm. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to nitrate.

16. Nitrite: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nitrite poses an acute health concern at certain levels of exposure. This inorganic chemical is used in fertilizers and is found in sewage and wastes from humans and/or farm animals and generally gets into drinking water as a result of those activities. While excessive levels of nitrite in drinking water have not been observed, other sources of nitrite have caused serious illness and sometimes death in infants under six months of age. The serious illness in infants is caused because nitrite interferes with the oxygen carrying capacity of the child's blood. This is an acute disease in that symptoms can develop rapidly. However, in most cases health deteriorates over a period of days. Symptoms include shortness of breath and blueness of the skin. Clearly, expert medical advice should be sought immediately if these symptoms occur. The purpose of this notice is to encourage parents and other responsible parties to provide infants with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. EPA has set the drinking water standard at 1 part

per million (ppm) for nitrite to protect against the risk of these adverse effects. EPA has also set a drinking water standard for nitrate (converted to nitrite in humans) at 10 ppm and for the sum of nitrate and nitrite at 10 ppm. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to nitrite.

17. Selenium: The United State Environmental Protection Agency (EPA) sets drinking water standards and has determined that selenium is a health concern at certain high levels of exposure. Selenium is also an essential nutrient at low levels of exposure. This inorganic chemical is found naturally in food and soils and is used in electronics, photocopy operations, and the manufacture of glass, chemicals, drugs, and as a fungicide and a feed additive. In humans, exposure to high levels of selenium over a long period of time has resulted in a number of adverse health effects, including a loss of feeling and control in the arms and legs. EPA has set the drinking water standard for selenium at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to selenium.

18. Thallium: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that thallium is a health concern at certain high levels of exposure. This inorganic metal is found naturally in soils and is used in electronics, pharmaceuticals, and the manufacture of glass and alloys. This chemical has been shown to damage the kidney, liver, brain and intestines of laboratory animals when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for thallium at 0.002 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to thallium.

19. Acrylamide: The United States Environmental Protection Agency (EPA) sets drinking standards and has determined that acrylamide is a health concern at certain levels of exposure. Polymers made from acrylamide are sometimes used to treat water supplies to remove particulate contaminants. Acrylamide has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. Sufficiently large doses of acrylamide are known to cause neurological injury. EPA has set the drinking water standard for acrylamide using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of the polymer which may be added to drinking water to remove particulates.

Drinking water systems which comply with this treatment technique have little to no risk and are considered safe with respect to acrylamide.

20. Alachlor: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that alachlor is a health concern at certain levels of exposure. This organic chemical is a widely used pesticide. When soil and climatic conditions are favorable, alachlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for alachlor at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to alachlor.

21. Aldicarb: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb is a health concern at certain levels of exposure. Aldicarb is a widely used pesticide. Under certain soil and climatic conditions (e.g., sandy soil and high rainfall), aldicarb may leach into ground water after normal agricultural applications to crops such as potatoes or peanuts or may enter drinking water supplies as a result of surface runoff. This chemical has been shown to damage the nervous system in laboratory animals such as rats and dogs exposed to high levels. EPA has set the drinking water standard for aldicarb at 0.003 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to aldicarb.

22. Aldicarb sulfone: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb sulfone is a health concern at certain levels of exposure. Aldicarb is a widely used pesticide. Aldicarb sulfone is formed from the breakdown of aldicarb and is considered for registration as a pesticide under the name aldoxycarb. Under certain soil and climatic conditions (e.g., sandy soil and high rainfall) aldicarb sulfone may leach into groundwater after normal agricultural applications to crops such as potatoes or peanuts or may enter drinking water supplies as a result of surface runoff. This chemical has been shown to damage the nervous systems in laboratory animals such as rats and dogs exposed to high levels. EPA has set the drinking water standard for aldicarb sulfone at 0.002 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water that meets the EPA standard is associated with little to

none of this risk and is considered safe with respect to aldicarb sulfone.

23. Aldicarb sulfoxide: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that aldicarb sulfoxide is a health concern at certain levels of exposure. Aldicarb is a widely used pesticide. Aldicarb sulfoxide in ground water is primarily a breakdown of aldicarb. Under certain soil and climatic conditions (e.g., sandy soil and high rainfall), aldicarb sulfoxide may leach into groundwater after normal agricultural applications to crops such as potatoes or peanuts or may enter drinking water supplies as a result of surface runoff. This chemical has been shown to damage the nervous systems in laboratory animals such as rats and dogs exposed to high levels. EPA has set the drinking water standard for aldicarb sulfoxide at 0.004 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to aldicarb sulfoxide.

24. Atrazine: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that atrazine is a health concern at certain levels of exposure. This organic chemical is a herbicide. When soil and climatic conditions are favorable, atrazine may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to affect offspring of rats and the heart of dogs. EPA has set the drinking water standard for atrazine at 0.003 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to atrazine.

25. Benzo(a)pyrene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that benzo(a)pyrene is a health concern at certain levels of exposure. Cigarette smoke and charbroiled meats are a common source of general exposure. The major source of benzo(a)pyrene in drinking water is the leaching from coal tar lining and sealants in water storage tanks. This chemical has been shown to cause cancer in animals such as rats and mice when the animals are exposed at high levels. EPA has set the drinking water standard for benzo(a)pyrene at 0.0002 parts per million (ppm) to protect against the risk of cancer. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to benzo(a)pyrene.

26. Carbofuran: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that carbofuran is a health concern at certain levels of exposure. This organic chemical is a pesticide. When soil and climatic conditions are favorable, carbofuran may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been

shown to damage the nervous and reproductive systems of laboratory animals such as rats and mice exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the nervous system. Effects on the nervous system are generally rapidly reversible. EPA has set the drinking water standard for carbofuran at 0.04 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to carbofuran.

27. Chlordane: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that chlordane is a health concern at certain levels of exposure. This organic chemical is a pesticide used to control termites. Chlordane is not very mobile in soils. It usually gets into drinking water after application near water supply intakes or wells. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for chlordane at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to chlordane.

28. Dalapon: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dalapon is a health concern at certain levels of exposure. This organic chemical is a widely used herbicide. It may get into drinking water after application to control grasses in crops, drainage ditches and along railroads. This chemical has been shown to cause damage to the kidney and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. EPA has set the drinking water standard for dalapon at 0.2 parts per million (pp) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to dalapon.

29. Dibromochloropropane (DBCP): The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that DBCP is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, dibromochloropropane may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals

also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for DBCP at 0.0002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to DBCP.

30. Dichloromethane: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dichloromethane (methylene chloride) is a health concern at certain levels of exposure. This organic chemical is a widely used solvent. It is used in the manufacture of paint remover, as a metal degreaser and as an aerosol propellant. It generally gets into drinking water after improper discharge of waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals re exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed overlong periods of time. EPA has set the drinking water standard for dichloromethane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dichloromethane.

31. Di(2-ethylhexyl)adipate: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that di(2-ethylhexyl)adipate is a health concern at certain levels of exposure. Di(2-ethylhexyl)adipate is a widely used plasticizer in a variety of products, including synthetic rubber, food packaging materials and cosmetics. It may get into drinking water after improper waste disposal. This chemical has been shown to damage liver and testes in laboratory animals such as rats and mice exposed to high levels. EPA has set the drinking water standard for di(2-ethylhexyl)adipate at 0.4 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the EPA standards is associated with little to none of this risk and should be considered safe with respect to de(2-ethylhexyl)adipate.

32. Di(2-ethylhexyl)phthalate: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that di(2-ethylhexyl)phthalate is a health concern at certain levels of exposure. Di(2-ethylhexyl)phthalate is a widely used plasticizer, which is primarily used in the production of polyvinyl chloride (PVC) resins. It may get into drinking water after improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice exposed to high levels over their lifetimes. EPA has set the drinking water standard for di(2-ethylhexyl)phthalate at 0.006 parts per million (ppm) to reduce the risk of cancer or other adverse

health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to di(2-ethylhexyl)phthalate.

33. Dinoseb: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dinoseb is a health concern at certain levels of exposure. Dinoseb is a widely used pesticide and generally gets into drinking water after application on orchards, vineyard and other crops. This chemical has been shown to damage the thyroid and reproductive organs in laboratory animals such as rats exposed to high levels. EPA has set the drinking water standard for dinoseb at 0.007 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to dinoseb.

34. Diquat: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that diquat is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeds. It may get into drinking water by runoff into surface water. This chemical has been shown to damage the liver, kidney and gastrointestinal tract and cause cataract formation in laboratory animals such as dogs and rats exposed at high levels over their lifetimes. EPA has set the drinking water standard for diquat at 0.02 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to diquat.

35. 2,4-D: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4-D is a health concern at certain levels of exposure. This organic chemical is used as a herbicide and to control algae in reservoirs. When soil and climatic conditions are favorable, 2,4-D may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4-D at 0.07 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to 2,4-D.

36. Endothall: The United States Environmental Protection Agency (EPA) has determined that endothall is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeds. It may get into water by runoff into surface water.

This chemical has been shown to damage the liver, kidney, gastrointestinal tract and reproductive system of laboratory animals such as rats and mice exposed at high levels over their lifetimes. EPA has set the drinking water standard for endothall at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to endothall.

37. Endrin: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that endrin is a health concern at certain levels of exposure. This organic chemical is a pesticide no longer registered for use in the United States. However, this chemical is persistent in treated soils and accumulates in sediments and aquatic and terrestrial biota. This chemical has been shown to cause damage to the liver, kidney and heart in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for endrin at 0.002 parts per million (ppm) to protect against the risk of these adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to endrin.

38. Epichlorohydrin: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that epichlorohydrin is a health concern at certain levels of exposure. Polymers made from epichlorohydrin are sometimes used in the treatment of water supplies as a flocculent to remove particulates. Epichlorohydrin generally gets into drinking water by improper use of these polymers. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for epichlorohydrin using a treatment technique to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. This treatment technique limits the amount of epichlorohydrin in the polymer and the amount of the polymer which may be added to drinking water as a flocculent to remove particulates. Drinking water systems which comply with this treatment technique have little to no risk and are considered safe with respect to epichlorohydrin.

39. Ethylene dibromide (EDB): The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that EDB is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, EDB may get into drinking water by runoff into surface water or by leaching into ground water. This

chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standards for EDB at 0.00005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect EDB.

40. Glyphosate: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that glyphosate is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control grasses and weeds. It may get into drinking water by runoff into surface water. This chemical has been shown to cause damage to the liver and kidneys in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for glyphosate at 0.7 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to glyphosate.

41. Heptachlor: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that heptachlor is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, heptachlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standards for heptachlor at 0.0004 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to heptachlor.

42. Heptachlor Epoxide: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that heptachlor epoxide is a health concern at certain levels of exposure. This organic chemical was once a popular pesticide. When soil and climatic conditions are favorable, heptachlor epoxide may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals

also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standards for heptachlor epoxide at 0.0002 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to heptachlor epoxide.

43. Hexachlorobenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that hexachlorobenzene is a health concern at certain levels of exposure. This organic chemical is produced as an impurity in the manufacture of certain solvents and pesticides. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed to high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for hexachlorobenzene at 0.001 parts per million (ppm) to protect against the risk of cancer and other adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to hexachlorobenzene.

44. Hexachlorocyclopentadiene: The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that hexachlorocyclopentadiene is a health concern at certain levels of exposure. This organic chemical is used as an intermediate in the manufacture of pesticides and flame retardants. It may get into water by discharge from production facilities. This chemical has been shown to damage the kidney and the stomach of laboratory animals when exposed at high levels over their lifetimes. EPA has set the drinking water standard for hexachlorocyclopentadiene at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to hexachlorocyclopentadiene.

45. Lindane: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that lindane is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. When soil and climatic conditions are favorable, lindane may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous systems, and immune system of laboratory animals such as rats, mice and dogs exposed at high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system and circulatory system. EPA has established the drinking water

standard for lindane at 0.0002 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to lindane.

46. Methoxychlor: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that methoxychlor is a health concern at certain levels of exposure. This organic chemical is used as a pesticide. When soil and climatic conditions are favorable, methoxychlor may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver, kidney, nervous system, and reproductive system of laboratory animals such as rats exposed at high levels during their lifetimes. It has also been shown to produce growth retardation in rats. EPA has set the drinking water standard for methoxychlor at 0.04 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to methoxychlor.

47. Oxamyl: The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that oxamyl is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for the control of insects and other pests. It may get into drinking water by runoff into surface water or leaching into groundwater. This chemical has been shown to damage the kidneys of laboratory animals such as rats when exposed at high levels over their lifetimes. EPA has set the drinking water standard for oxamyl at 0.2 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to oxamyl.

48. Pentachlorophenol: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that pentachlorophenol is a health concern at certain levels of exposure. This organic chemical is used a wood preservative, herbicide, disinfectant, and defoliant. It generally gets into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to produce adverse reproductive effects and to damage the liver and kidneys of laboratory animals such as rats exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the liver and kidneys. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed to high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking

water standard for pentachlorophenol at 0.001 parts per million (ppm) to protect against the risk of cancer or other adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to pentachlorophenol.

49. Picloram: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that picloram is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for broadleaf weed control. It may get into drinking water by runoff into surface water or leaching into ground water as a result of pesticide application and improper waste disposal. This chemical has been shown to cause damage to the kidneys and liver in laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for picloram at 0.5 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to picloram.

50. Polychlorinated Biphenyls: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that polychlorinated biphenyls (PCBs) are a health concern at certain levels of exposure. These organic chemicals were once widely used in electrical transformers and other industrial equipment. They generally get into drinking water by improper waste disposal or leaking electrical industrial equipment. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for PCBs at 0.0005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to PCBs.

51. Simazine: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that simazine is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control annual grasses and broadleaf weeds. It may leach into ground water or runs off into surface water after application. This chemical may cause cancer in laboratory animals such as rats and mice exposed at high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for simazine at 0.004 parts per million (ppm) to reduce the risk of cancer or other adverse health effects. Drinking water which meets the EPA

standard is associated with little to none of this risk and should be considered safe with respect to simazine.

52. Toxaphene: The United State Environmental Protection Agency (EPA) sets drinking water standards and has determined that toxaphene is a health concern at certain levels of exposure. This organic chemical was once a pesticide widely used on cotton, corn, soybeans, pineapples and other crops. When soil and climatic conditions are favorable, toxaphene may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for toxaphene at 0.003 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to toxaphene.

53. 2,3,7,8-TCDD (Dioxin): The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dioxin is a health concern at certain levels of exposure. This organic chemical is an impurity in the production of some pesticides. It may get into drinking water by industrial discharge of wastes. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed a high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for dioxin at 0.0000003 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dioxin.

54. 2,4,5-TP.: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 2,4,5-TP is a health concern at certain levels of exposure. This organic chemical is used as a herbicide. When soil and climatic conditions are favorable, 2,4,5-TP may get into drinking water by runoff into surface water or by leaching into ground water. This chemical has been shown to damage the liver and kidney of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the nervous system. EPA has set the drinking water standard for 2,4,5-TP at 0.05 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe

with respect to 2,4,5-TP.

55. 1,2,4-Trichlorobenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2,4-trichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a dye carrier and as a precursor in herbicide manufacture. It generally gets into drinking water by discharges from industrial activities. This chemical has been shown to cause damage to several organs, including the adrenal glands. EPA has set the drinking water standard for 1,2,4-trichlorobenzene at 0.07 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associate with little to none of this risk and should be considered safe with respect to 1,2,4-trichlorobenzene.

56. 1,1,2-Trichloroethane: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,1,2-trichloroethane is a health concern at certain levels of exposure. This organic chemical is an intermediate in the production of 1,1-dichloroethylene. It generally gets into water by industrial discharge of wastes. This chemical has been shown to damage the kidney and liver of laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for 1,1,2-trichloroethane at 0.005 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 1,1,2-trichloroethane.

57. Benzene: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that benzene is a health concern at certain levels of exposure. This chemical is used as a solvent and degreaser of metals. It is also a major component of gasoline. Drinking water contamination generally results from leaking underground gasoline and petroleum tanks or improper waste disposal. This chemical has been associated with significantly increased risks of leukemia among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for benzene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

58. Carbon Tetrachloride: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that carbon tetrachloride is a health concern at certain levels of exposure. This chemical was once a popular household cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for carbon tetrachloride at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

59. o-Dichlorobenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that o-dichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent in the production of pesticides and dyes. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and the blood cells of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, nervous system, and circulatory system. EPA has set the drinking standard for o-dichlorobenzene at 0.6 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to o-dichlorobenzene.

60. Para-dichlorobenzene: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that para-dichlorobenzene is a health concern at certain levels of exposure. This chemical is a component of deodorizers, moth balls and pesticides. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over the lifetimes. Chemicals which cause adverse health effects in laboratory animals may also cause adverse health effects in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for Para-dichlorobenzene at 0.075 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and

should be considered safe.

61. 1,2-Dichloroethane: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that 1,2-dichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaning fluid for fats, oils, waxes and resins. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for 1,2-dichloroethane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

62. 1,1-Dichloroethylene: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that 1,1-dichloroethylene is a health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been shown to cause liver and kidney damage in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals which cause adverse health effects in laboratory animals may also cause adverse health effects in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for 1,1-dichloroethylene at 0.007 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

63. Cis-1,2-Dichloroethylene: The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that cis-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and circulatory system of laboratory animals such as rats and mice when exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for cis-1,2-dichloroethylene at 0.07 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking

water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to cis-1,2-dichloroethylene.

64. Trans-1,2-Dichloroethylene: The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that trans-1,2-dichloroethylene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and intermediate in chemical production. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, nervous system, and the circulatory system of laboratory animals such as rats and mice when exposed at high levels over their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set drinking water standards for trans-1,2-dichloroethylene at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to trans-1,2-dichloroethylene.

65. 1,2-Dichloropropane: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2-dichloropropane is a health concern at certain levels of exposure. This organic chemical is used as a solvent and pesticide. When soil and climatic conditions are favorable, 1,2-dichloropropane may get into drinking water by runoff into surface water or by leaching into ground water. It may also get into drinking water through improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for 1,2-dichloropropane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to 1,2-dichloropropane.

66. Ethylbenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined ethylbenzene is a health concern at certain levels of exposure. This organic chemical is a major component of gasoline. It generally gets into water by improper waste disposal or leaking gasoline tanks. This chemical has been shown to damage the kidney, liver, and nervous system of laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for ethylbenzene at 0.7 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered

safe with respect to ethylbenzene.

67. Monochlorobenzene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that monochlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a solvent. It generally gets into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. EPA has set the drinking water standard for monochlorobenzene at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to monochlorobenzene.

68. Styrene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that styrene is a health concern at certain levels of exposure. This organic chemical is commonly used to make plastics and is sometimes a component of resins used for drinking water treatment. Styrene may get into drinking water from improper waste disposal. This chemical has been shown to damage the liver and nervous system in laboratory animals when exposed at high levels during their lifetimes. EPA has set the drinking water standard for styrene at 0.1 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to styrene.

69. Tetrachloroethylene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that tetrachloroethylene is a health concern at certain levels of exposure. This organic chemical has been a popular solvent, particularly for dry cleaning. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for tetrachloroethylene at 0.005 part per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water that meets this standard is associated with little to none of this risk and is considered safe with respect to tetrachloroethylene.

70. Toluene: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that toluene is a health concern at certain levels of exposure. This organic chemical is used as a solvent and in the manufacture of gasoline for airplanes. It generally gets into water by improper waste disposal or leaking underground storage tanks. This chemical has been

shown to damage the kidney, nervous system, and circulatory system of laboratory animals such as rats and mice exposed to high levels during their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during working careers also suffered damage to the liver, kidney and nervous system. EPA has set the drinking water standard for toluene at 1 part per million (ppm) to protect against the risk of adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to toluene.

71. 1,1,1-Trichloroethane: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that 1,1,1-trichloroethane is a health concern at certain levels of exposure. This chemical is used as a cleaner and degreaser of metals. It generally gets into drinking water by improper waste disposal. This chemical has been shown to damage the liver, nervous system and circulatory system of laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Some industrial workers who were exposed to relatively large amounts of this chemical during their working careers also suffered damage to the liver, nervous system and circulatory system. Chemicals which cause adverse health effects in laboratory animals may also cause adverse health effects in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for 1,1,1-trichloroethane at 0.2 parts per million (ppm) to reduce the risk of these adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

72. Trichloroethylene: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that trichloroethylene is a health concern at certain levels of exposure. This chemical is a common metal cleaning and dry cleaning fluid. It generally gets into drinking water by improper waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for trichloroethylene at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

73. Vinyl Chloride: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that vinyl chloride is a

health concern at certain levels of exposure. This chemical is used in industry and is found in drinking water as a result of the breakdown of related solvents. The solvents are used as cleaners and degreasers of metals and generally get into drinking water by improper waste disposal. This chemical has been associated with significantly increased risks of cancer among certain industrial workers who were exposed to relatively large amounts of this chemical during their working careers. This chemical has also been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause increased risk of cancer among exposed industrial workers and in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The USEPA has set the enforceable drinking water standard for vinyl chloride at 0.002 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in humans and laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe.

74. Xylenes: The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that xylene is a health concern at certain levels of exposure. This organic chemical is used in the manufacture of gasoline for airplanes and as a solvent for pesticides, and as a cleaner and degreaser of metals. It usually get into water by improper waste disposal. This chemical has been shown to damage the liver, kidney and nervous system of laboratory animals such as rats and dogs exposed to high levels during their lifetimes. Some humans who were exposed to relatively large amounts of this chemical also suffered damage to the nervous system. EPA has set the drinking water standard for xylene at 10 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water that meets the EPA standard is associated with little to none of this risk and is considered safe with respect to xylene.

F. Public Notification for Fluoride: Notice of violations of the MCL for fluoride, notices of variances and exemptions from the MCL for fluoride, and notices of failure to comply with variance and exemption schedules for the MCL level for fluoride shall consist of the public notice prescribed in this Section, plus a description of any steps which the system is taking to come into compliance.

G. Public Notification by the State: The Division may give notice to the public required by this Section on behalf of the owner or operator of a public water system if the Division complies with the requirements of this Section. However, the owner or operator of the public water system remains legally responsible for ensuring that the requirements of this Section are met.

22.413 Frequency and Distribution of Public Notification:

A. MCL, Treatment Technique and Variance and Exemption Schedule Violations:

1. Except as provided in paragraph A.3., of this Section, the owner or operator of a public water system must give notice:

a. By publication in a daily newspaper of general circulation in the area served by the system as soon as possible, but in no case later than fourteen (14) days after the violation or failure. If the area served by the PWS is not served by a daily newspaper of general circulation, notice shall instead be given by publication in a weekly newspaper of general circulation serving the area and;

b. By mail delivery (by direct mail or with the water bill) or by hand delivery not later than forty-five (45) days after the violation or failure. The Division may waive mail or hand delivery if it determines that the owner or operator of the PWS in violation has corrected the violation or failure within the forty-five (45) day period and;

c. For violations of the MCLs of contaminants that may pose an acute risk to human health, by furnishing a copy of the notice to the radio and television stations serving the area served by the PWS as soon as possible but in no case later than seventy-two (72) hours after the violations:

1. Any violations specified by the Division as posing an acute risk to human health.

2. Violation of the MCL for nitrate as defined in and determined in Section 22.602(I)(3).

2. Except as provided in paragraph A.3., of this Section, following the initial notice given under paragraph A.1., of this Section, the owner or operator of the PWS must give notice at least once every three (3) months by mail delivery (by direct mail or with the water bill) or by hand delivery, for as long as the violation or failure exists.

3. Exceptions for community and non-community water systems are as follows:

a. In lieu of the requirements of paragraph A.1.(a) of this Section, the owner or operator of a CWS in an area that is not served by a daily or weekly newspaper of general circulation must give notice by hand delivery or by continuous posting in conspicuous places within the area served by the system. Notice by hand delivery or posting must begin as soon as possible, but no later than seventy-two (72) hours after the violation or failure for acute violations, or fourteen (14) days after the violation or failure for any other violation. Posting must continue for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three (3) months for as long as the violation or failure exists.

b. In lieu of the requirements of paragraphs A.1.(a) and A.1.(b) of this Section, the owner or operator of a NCWS may give notice by hand delivery or by continuous posting in conspicuous places within the area served by the system. Notice by hand delivery or posting must begin as

soon as possible, but no later than seventy-two (72) hours after the violation or failure for acute violations, or fourteen (14) days after the violation or failure for any other violation. Posting must continue for as long as the violation or failure exists. Notice by hand delivery must be repeated at least every three (3) months for as long as the violation or failure exists.

B. Notification to New Billing Units: The owner or operator of a PWS must give a copy of the most recent public notice for any outstanding violation of any MCL, or any treatment technique requirement, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins.

C. Monitoring, Testing Procedure, Variances and Exemptions: The owner or operator of a PWS which fails to perform required monitoring, fails to comply with a testing procedure, or is subject to a variance or exemption shall notify persons served by the system as follows:

1. Except as provided in paragraph C.3. or C.4. of this Section, the owner or operator of a PWS must give notice within three (3) months of the violation or granting of a variance or exemption by publication in a daily newspaper of general circulation in the area served by the system. If the area served by the PWS is not served by a daily newspaper of general circulation, notice shall instead be given by publication in a weekly newspaper of general circulation serving the area.

2. Except as provided in paragraph C.3 or C.4 of this Section, following the initial notice given under paragraph C.1. of this Section, the owner or operator of the PWS must give notice at least once every three months by mail delivery (by direct mail or with water bill) or by hand delivery, for as long as the violation exists. Repeat notice of the existence of a variance or exemption must be given every three months for as long as the variance or exemption remains in effect.

3. Exceptions for community and non-community water systems are as follows:

a. In lieu of the requirements of paragraph C.1. or C.2. of this Section, the owner or operator of a CWS in an area that is not served by a daily or weekly newspaper of general circulation must give notice, within three (3) months of the violation or granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places within the area served by the system. Posting must continue for as long as the violation exists or a variance or exemption remains in effect. Notice by hand delivery must be repeated at least every three (3) months for as long as the violation exists or a variance or exemption remains in effect.

b. In lieu of the requirements of paragraphs A.1.(a.) and A.1.(b) of this Section, the owner or operator of a NCWS may give notice within three (3) months of the violation or the granting of a variance or exemption, by hand

delivery or by continuous posting in conspicuous places within the area served by the system. Posting must continue for as long as the violation exists or a variance or exemption remains in effect. Notice by hand delivery must be repeated at least every three (3) months for as long as the violation exists or a variance or exemption remains in effect.

4. In lieu of the requirements of paragraphs C.1., C.2. and C.3. of this Section, the owner or operator of a PWS, at the discretion of the Division, may provide less frequent notice for minor monitoring violations as defined by the Division, if EPA has approved the Division's application for a program revision.

D. All posted public notices shall remain readable and be protected by glass, plastic or some other suitable covering and remain in place until such time that the violation or failure has terminated.

E. Notice to the public required by this Section may be given by the Division should the water supplier fail to do so.

F. Nothing in this Section shall limit the authority of the State Board of Health to require notification by newspaper and to radio and television stations when circumstances make more immediate or broader notice appropriate to protect the public's health.

G. All community and non-community water suppliers shall submit to the Division, within ten (10) days of the completion of issuance of public notification, a representative copy of each type of notice distributed, published, posted and/or made available to the person served by the system and/or to the media.

#### 22.414 Public Notification Requirements Pertaining to Lead

##### A. Applicability of Public Notification Requirements

1. Except as provided in paragraph A.2. of this Section, by June 19, 1988, the owner or operator of each CWS and each NTNCWS shall issue notice to persons served by the system that may be affected by lead contamination of their drinking water. The Division may require subsequent notices. The owner or operator shall provide notice under this Section even if there is no violation of the national primary drinking water regulation for lead.

2. Notice under paragraph A.1. of this Section is not required if the system demonstrates to the Division that the water system, including the residential and non-residential portions connected to the water system, are lead free. For the purposes of this paragraph, the term "lead free" when used with respect to solders and flux refers to solder and flux containing not more than 0.2 percent lead, and when used with respect to pipes and pipe fittings, refers to pipes and pipe fittings containing not more than 8.0 percent lead.

3. The owner shall review, correct and complete the public notice and return it to the Division within seventy-two (72) hours with approval noted.

##### B. Manner of Notification

1. Notice shall be given to persons served by the PWS either by:

a. Three newspaper notices one (1) for each of three (3) consecutive months and the first no later than June 19, 1988) or;

b. Once by mail notice with the water bill or in a separate mailing by June 19, 1988 or;

c. Once by hand delivery by June 19, 1988.

2. For NTNCWS, notice may be given by continuous posting. If posting is used, the notice shall be posted in a conspicuous place in the area served by the system and start no later than June 19, 1988, and continue for three (3) months.

##### C. General Content of Notice

1. Notices issued under this Section shall provide a clear and readily understandable explanation of the potential sources of lead in drinking water, potential adverse health effects, reasonable available methods of mitigating known or potential lead content in drinking water, any steps the water system is taking to mitigate lead content in drinking water and the necessity for seeking alternative water supplies, if any. Use of the mandatory language in paragraph D. of this Section in the notice will be sufficient to explain potential adverse health effects.

2. Each notice shall also include specific advice on how to determine if materials containing lead have been used in homes or the water distribution system and how to minimize exposure to water likely to contain high levels of lead. Each notice shall be conspicuous and shall not contain unduly technical language, unduly small print, or similar problems that frustrate the purpose of the notice. Each notice shall contain the telephone number of the owner, operator or designee of the PWS as a source of additional information regarding the notice. Where appropriate, the notice shall be multi-lingual.

D. Mandatory Health Effects Information: When providing the information in public notices required under paragraph C of this Section on the potential adverse health effects of lead in drinking water, the owner or operator of the water system shall include the following mandatory language specific to lead.

1. Lead: The United States Environmental Protection Agency (USEPA) sets drinking water standards and has determined that lead is a health concern at certain levels of exposure. There is currently a standard of 0.020 parts per million (ppm). Part of the purpose of this notice is to inform you of the potential adverse health effects of lead. This is being done even though your water may not be in violation of the current standard. The USEPA and others are concerned about lead in drinking water. Too much lead in the human body can cause serious damage to the brain, kidneys, nervous system and red blood cells. The greatest risk, even with short-term exposure, is to young children and pregnant women. Lead levels in your drinking water are

likely to be highest:

- \* if your home or water system has lead pipes, or
- \* if your home has copper pipes with lead solder,

and

- \* if the home is less than five (5) years old
- \* if you have soft or acidic water, or
- \* if water sits in the pipes for several hours.

22.415 Public Notification Requirements Pertaining to VOCs: If a CWS or NTNCWS fails to comply with an applicable MCL level established under Section 22.611, or fails to comply with requirements of any schedule prescribed pursuant to a variance or exemption, the water supplier shall notify persons served by the system as provided in Section 22.413.

22.416 Public Notification Requirements Pertaining to Unregulated Contaminants: The owner or operator shall notify persons served by the system of the availability of the results of sampling conducted under Section 26.62 by including a notice in the first set of water bills issued by the system after the receipt of the results or written notice within three months. The notice shall identify a person and supply the telephone number contact for information on monitoring results. For surface water systems, public notification is required only after the first quarter's monitoring for unregulated contaminants, with a statement that monitoring will be conducted for three (3) more quarters with the results available upon request.

22.417 Procedures for Issuance of a Public Notice

A. PMCL Violation:

1. Upon notification that a condition exists as indicated in Section 22.411A., the Division shall prepare a notice in accordance with Section 22.412 and a draft public notice for use in public notification by the water supply owner.

2. As soon as possible, but in no case more than seventy-two (72) hours, the Division shall forward the notice and draft notice to the water supply owner.

3. The owner shall review, correct and complete the public notice and return it to the Division within seventy-two (72) hours with approval noted.

4. The Division shall resolve any discrepancies and approve the public notice until as rapidly as possible and retain the public notice until the final confirmation sample results are received.

5. Upon receipt of the confirmation sampling results, the Division shall determine if a public notice is warranted and shall return the approved public notice to the owner for appropriate public notification.

B. Other Violations or Circumstances Requiring Public Notification:

1. Upon notification that a condition exists as

indicated in Section 22.411B. and 22.411C., the Division shall initiate the preparation of a draft public notice and notice if appropriate.

2. As soon as possible, but in no case more than seventy-two (72) hours, the Division shall forward a copy of the draft public notice with attached notice, if applicable, to the water supply owner.

3. The owner shall review, correct and complete the public notice and return it to the Division within seventy-two (72) hours with approval noted.

4. The Division shall resolve any discrepancies and approve the public notice as rapidly as possible.

5. The Division shall then return the approved public notice to the owner for appropriate public notification.

22.42 Record Maintenance:

22.421 Retaining Records: Effective upon the adoption of these Regulations, any owner or operator of a PWS shall accumulate and make available to the Division within the time stated the following records which shall be retained on the premises or at a convenient location:

A. Bacteriological analyses of records for not less than the previous five (5) years.

B. Chemical analyses records for not less than the previous ten (10) years.

C. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, provided that the following information is included:

1. The date, place and time of sampling and the name of the person who collected the sample;

2. Identification of the sample as to whether it was a routine distribution system sample, check sample, raw or process water sample or other special purpose sample;

3. Date of analysis;

4. Laboratory and person responsible for performing analysis;

5. The analytical technique/method used and;

6. The results of the analysis.

D. Records of action taken by the system to correct violations of PMCL regulations shall be kept for a period not less than three (3) years after the last action taken with respect to the particular violation involved.

E. Reports, summaries and communications relating to sanitary surveys shall be kept for a period not less than ten (10) years after completion of the sanitary survey of the system conducted by the system itself, by a private consultant or by any local, State or Federal agency.

F. Records concerning a variance or exemption shall be kept for a period ending not less than five (5) years following the expiration of such variance or exemption.

22.422 Records Kept by Division: Records of

microbiological analyses of repeat or special samples shall be retained for not less than one (1) year in the form of actual laboratory reports or in an appropriate summary form. Records of each of the following decisions made pursuant to the total coliform provisions shall be made in writing and retained by the Division.

A. Records of the following decisions must be retained for five (5) years:

1. Any decision to waive the twenty-four (24) hour time limit for collecting repeat samples after a total coliform positive routine sample if the public water system has a logistical problem in collecting the repeat sample that is beyond the system's control, and what alternative time limit the system must meet.

2. Any decision to allow a system to waive the requirement for five (5) routine samples the month following a total coliform-positive sample. If the waiver decision is made, the record of the decision must contain all items listed in that paragraph.

3. Any decision to invalidate a total coliform-positive sample. If the decision to invalidate a total coliform positive sample is made, the record of the decision must contain all the items in that paragraph.

B. Records of each of the following decisions must be retained in such a manner so that each system's current status may be determined:

1. Any decision to reduce the total coliform monitoring frequency for a CWS serving one thousand (1000) persons or fewer, that has no history of total coliform contamination in its current configuration and had a sanitary survey conducted within the last five (5) years showing that the system is supplied solely by a protected ground water source and is free of sanitary defects, to less than once per month and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.

2. Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving one thousand (1000) persons or fewer to less than once per quarter, and what the reduced monitoring frequency is. A copy of the reduced monitoring frequency must be provided to the system.

3. Any decision to reduce the total coliform monitoring frequency for a NCWS using only ground water and serving more than one thousand (1000) persons during any month the system serves one thousand (1000) persons or fewer. A copy of the reduced monitoring frequency must be provided to the system.

4. Any decision to waive the twenty-four hour limit for taking a total coliform sample for a PWS which uses surface water, or ground water under the influence of surface water, and which does not practice filtration, and which measures a source water turbidity level exceeding one (1) NTU near the first service connection.

5. Any decision that a NCWS is using only protected and disinfected ground water and therefore may reduce the frequency of its sanitary survey to less than once every five (5) years and what that frequency is. A copy of the reduced frequency must be provided to the system.

6. A list of agents other than the Division, if any, approved by the Division to conduct sanitary surveys.

7. Any decision to allow a PWS to forgo fecal coliform or E. coli testing on a total coliform positive sample if that system assumes that the total coliform positive sample is fecal coliform positive or E. coli positive.

## 22.5 MICRO-BIOLOGICAL REQUIREMENTS:

### 22.50 Sampling:

22.501 Sampling Sites: Compliance with bacteriological requirements of these Regulations shall be based on examinations of samples collected at sites which are representative of water throughout the distribution system according to a written sample siting plan. These plans are subject to Division review and revision.

22.502 CWS Sampling Frequency: The supplier of water for a CWS shall sample for total coliform bacteria at least monthly in numbers proportional to the population served by the system in accordance with the following:

Population Served      Number of Samples per Month

25-1,000	1
1,001-2,500	2
2,501-3,300	3
3,301-4,100	4
4,101-4,900	5
4,901-5,800	6
5,801-6,700	7
6,701-7,600	8
7,601-8,500	9
8,501-12,900	10
12,901-17,200	15
17,201-21,500	20
21,501-25,000	25
25,001-33,000	30
33,001-41,000	40
41,001-50,000	50
50,001-59,000	60
59,001-70,000	70
70,001-83,000	80
83,001-96,000	90
96,001-130,000	100
130,001-220,000	120

22.503 Reduced Monitoring Frequency for CWSs: If a CWS serving twenty-five (25) to one thousand (1000) persons has no history of total coliform contamination in its current configuration and a sanitary survey conducted in the past five (5) years shows that the system is supplied solely by a protected ground water source and is free of sanitary

defects, the Division may reduce the monitoring frequency specified above, except that in no case may the Division reduce the monitoring frequency to less than one (1) sample per quarter. The Division must approve the reduced monitoring frequency in writing.

22.504 NCWS Sampling Frequency: The supplier of water for a NCWS and NTNCWS shall sample for total coliform bacteria in accordance with the following:

A. A NCWS and NTNCWS using only ground water (except ground water under the direct influence of surface water) and serving one thousand (1000) persons or fewer must monitor each calendar quarter that the system provides water to the public, except that the Division may reduce this monitoring frequency, in writing, if a sanitary survey shows that the system is free of sanitary defects. Beginning June 29, 1994 the Division cannot reduce the monitoring frequency for a NCWS using only ground water (except ground water under the direct influence of surface water) and serving one thousand (1000) persons or fewer to less than once per year.

B. A NCWS and NTNCWS using only ground water (except ground water under the direct influence of surface water) and serving more than one thousand (1000) persons during any month must monitor at the same frequency as a like-sized CWS, as specified in Section 22.502, except the Division may reduce this monitoring frequency, in writing, for any month the system serves one thousand (1000) persons or fewer. The Division cannot reduce the monitoring frequency to less than once per year. For systems using ground water under the direct influence of surface water, Section 22.504D applies.

C. A NCWS and NTNCWS using surface water, in total or in part, must monitor at the same frequency as a like-sized CWS, as specified in Section 22.502, regardless of the number of persons it serves.

D. A NCWS and NTNCWS using ground water under the direct influence of surface water must monitor at the same frequency as a like-sized CWS, as specified in Section 22.502. The system must begin monitoring at this frequency beginning six (6) months after the Division determines that the ground water is under the direct influence of surface water.

22.505 Special Sampling for Surface Water Systems: A PWS that uses surface water or ground water under the direct influence of surface water, and does not practice filtration in compliance with Section 22.1004, must collect at least one (1) sample near the first service connection each day the turbidity level of the source water, measured as specified in Section 22.702, exceeds one (1) NTU. This sample must be analyzed for the presence of total coliforms. When one (1) or more turbidity measurements in any day exceed one (1) NTU, the system must collect this coliform sample within

twenty-four (24) hours of the first exceedance, unless the Division determines that the system, for logistical reasons outside the system's control, cannot have the sample analyzed within thirty (30) hours of collection. Sample results from this coliform monitoring must be included in determining the MCL for total coliforms.

22.506 Monthly/Quarterly Sampling: The PWS must collect samples at regular time intervals throughout the month/quarter, except that a system that uses ground water (except ground water under the direct influence of surface water) and serves 4,900 persons or fewer, may collect all required samples on a single day if they are taken from different sites.

22.507 Special Purpose Samples: Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement, or repair, shall not be used to determine compliance with the MCL for total coliforms. Repeat samples taken pursuant to Section 22.513 are not considered special purpose samples, and must be used to determine compliance with the MCL for total coliforms.

#### 22.51 Microbiological MCLs

22.511 Total Coliforms, Fecal Coliforms and *E. coli*: The MCLs for microbiological contaminants are in accordance with the following:

A. When any approved analytical methodology from Section 22.52 is used, compliance with the MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density in accordance with the following:

1. For a system which collects at least forty (40) samples per month/quarter, if no more than 5.0 percent of the samples collected during a month/quarter are total coliform-positive, the system is in compliance with the MCL for total coliforms.

2. For a system which collects fewer than forty (40) samples per month/quarter, if no more than one (1) sample collected during a month/quarter is total coliform-positive, the system is in compliance with the MCL for total coliforms.

B. Any fecal coliform-positive repeat sample, or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in Section 22.41, this is a violation that may pose an acute risk to health.

C. A PWS must determine compliance with the MCL for total coliforms in accordance with the above for each month/quarter in which it is required to monitor for total coliforms.

D. The Division hereby identifies the following as the

BAT, treatment techniques, or other means available for achieving compliance with the MCL for total coliforms above:

1. Protection of wells from contamination by coliforms by appropriate placement and construction;
2. Maintenance of a disinfectant residual throughout the distribution system;
3. Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system;
4. Filtration and/or disinfection of surface water, or disinfection of ground water using strong oxidants such as chlorine, chlorine dioxide, or ozone.
5. The development of an EPA-approved State Wellhead Protection Program under Section 1428 of the Safe Drinking Water Act (SDWA).

22.512 Invalidation of Total Coliform-Positive Samples: Each total coliform positive sample counts in compliance calculations, unless it has been invalidated by the Division. Invalidated samples do not count toward the minimum monitoring frequency. The Division may invalidate a sample if:

A. The analytical laboratory acknowledges that improper sample analysis caused the positive result;

B. A laboratory must invalidate a total coliform sample (unless total coliforms are detected) if the sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined (e.g. the Multiple-Tube Fermentation Technique), produces a turbid culture in the absence of an acid reaction in the Presence-Absence (P-A) Coliform Test, or exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter (e.g. Membrane Filter Technique). If a laboratory invalidates a sample because of such interference, the system must collect another sample from the same location as the original sample within twenty-four (24) hours of being notified of the interference problem, and have it analyzed for the presence of total coliforms. The system must continue to re-sample within twenty-four (24) hours and have the samples analyzed until it obtains a valid result. The Division may waive the twenty-four (24) hour time limit on a case-by-case basis.

C. The system determines that the contamination is a domestic or other non-distribution system plumbing problem on the basis that one (1) or more repeat samples taken at the same tap as the original total coliform positive sample is total coliform positive, but all repeat samples at nearby sampling locations that are within five (5) service connections of the original tap are total coliform negative. A

total coliform-positive sample cannot be invalidated under this provision if the PWS has only one (1) service connection; or

D. The Division has substantial grounds to believe that a total coliform positive result is due to some circumstance or condition which does not reflect water quality in the distribution system, if:

1. The basis for this determination is documented in writing.

2. This document is signed and approved by the Division.

3. The documentation is made available to EPA and the public. The written documentation must state the specific cause of the total coliform-positive sample, and what action the system has taken, or will take, to correct this problem.

The system must still collect all repeat samples required under Section 22.513 to determine compliance with the MCL for total coliforms in Section 22.511.

22.513 Repeat Monitoring: When a total coliform-positive sample result is obtained, repeat sampling must be done in accordance with the following:

A. If a routine sample is total-coliform positive, the PWS must collect a set of repeat samples within twenty-four (24) hours of being notified of the positive result. A system which collects more than one (1) routine sample/month must collect no fewer than three (3) repeat samples for each total coliform positive sample found. A system which collects one (1) routine sample/month or fewer must collect no fewer than four (4) repeat samples for each total coliform positive sample found. The Division may extend the twenty-four (24) hour limit on a case-by-case basis if the system has a logistical problem in collecting the repeat samples within twenty-four hours that is beyond its control. In the case of an extension, the Division must specify how much time the system has to collect the repeat samples.

B. The system must collect at least one (1) repeat sample from the sampling tap where the original total coliform-positive sample was taken, and at least one (1) repeat sample at a tap within five (5) service connections upstream and at least one (1) repeat sample at a tap within five (5) service connections downstream of the original sampling site. If a total coliform-positive sample is at the end of the distribution system, or one (1) away from the end of the distribution system, the Division may waive the requirement to collect at least one (1) repeat sample upstream or downstream of the original sampling site.

C. The system must collect all repeat samples on the same day, except that the Division may allow a system with a single service connection to collect the required set of repeat samples over a four (4) day period or to collect a larger volume repeat sample(s) in one (1) or more sample containers of any size, as long as the total volume collected

is at least four hundred (400) mL [three hundred (300) mL for systems which collect more than one (1) routine sample/month].

D. If one (1) or more repeat samples in the set is total coliform-positive, the PWS must collect an additional set of repeat samples in the manner specified in paragraphs A, B, and C of this Section. The additional samples must be collected within twenty-four (24) hours of being notified of the positive result, unless the Division extends the limit as provided in paragraph A of this Section. The system must repeat this process until either total coliforms are not detected in one (1) complete set of repeat samples or the system determines that the MCL for total coliforms in Section 22.511 has been exceeded and notifies the Division.

E. If a system collecting fewer than five (5) routine samples per month has one (1) or more total coliform-positive samples and the Division does not invalidate the sample(s) under Section 22.512, it must collect at least five (5) routine samples during the next month the system provides water to the public, except that the Division may waive this requirement if the conditions of paragraphs E1 and E2 are met. The Division cannot waive the requirement for a system to collect repeat samples in paragraphs A, B, C, and D of this Section.

1. The Division may waive the requirements to correct five (5) routine samples the next month the system provides water to the public if the Division, or an agent approved by the Division, performs a site visit before the end of the next month the system provides water to the public. Although a sanitary survey need not be performed, the site visit must be sufficiently detailed to allow the Division to determine whether additional monitoring and/or any corrective action is needed. The Division cannot approve an employee of the system to perform the site visit, even if the employee is an agent approved by the Division to perform sanitary surveys.

2. The Division may waive the requirements to collect five (5) routine samples the next month the system provides water to the public if the Division has determined why the sample was total coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. In this case, the Division must document this decision to waive the following month's additional monitoring requirement in writing, have it approved and signed by the supervisor of the Division official who recommends such a decision, and make this document available to the EPA and the public. The written documentation must describe the specific cause of the total coliform-positive sample and what action the system has taken and/or will take to correct this problem. The Division cannot waive the requirement to collect five (5) routine samples the next month the system provides water to the public solely on the grounds that all coliform samples are

total coliform-negative. Under this paragraph, a system must still take at least one (1) routine sample before the end of the next month it serves water to the public and use it to determine compliance with the MCL for total coliforms in Section 22.511, unless the Division has determined that the system has corrected the contamination problem before the system took the set of repeat samples required in paragraphs A, B, C, and D of this Section, and all repeat samples were total coliform negative.

F. After a systems collects a routine sample and before it learns the results of the analysis of that sample, if it collects another routine sample(s) from within five (5) adjacent service connections of the initial sample, and the initial sample, after analysis, is found to contain total coliforms, then the system may count the subsequent sample(s) as a repeat sample instead of a routine sample.

G. Results of all routine and repeat samples not invalidated by the Division must be included in determining compliance with the MCL for total coliforms in Section 22.511.

22.514 Initial/Subsequent Sanitary Surveys: PWSs which do not collect five (5) or more routine samples/month must undergo an initial sanitary survey by June 29, 1994 for CWSs and June 29, 1999 for NCWSs. Thereafter, systems must undergo another sanitary survey every five (5) years, except that NCWSs using only protected and disinfected ground water, as defined by the Division, must undergo subsequent sanitary surveys at least every ten (10) years after the initial sanitary survey. The Division must review the results of each sanitary survey to determine whether the existing monitoring frequency is adequate and what additional measures, if any, the system needs to undertake to improve drinking water quality. In conducting a sanitary survey of a system using ground water in a State having an EPA-approved wellhead protection program under Section 1428 of the SDWA, information on sources of contamination within the delineated wellhead protection area that was collected in the course of developing and implementing the program should be considered instead of collecting new information, if the information was collected since the last time the system was subject to a sanitary survey. Sanitary surveys must be performed by the Division and the system is responsible for ensuring the survey takes place.

22.515 Fecal Coliforms/*Escherichia coli* (*E. coli*) Testing: When a total coliform-positive sample result is obtained, the sample must be analyzed for fecal coliforms or *E. coli* in accordance with the following:

A. If any routine or repeat sample is total coliform-positive, the system must analyze that total coliform-positive culture medium to determine if fecal coliforms are present, except that the system may test for *E. coli* in lieu of fecal

coliforms. If fecal coliforms or *E. coli* are present, the system shall notify the Division by the end of the day when the system is notified of the test result, unless the system is notified of the result after the Division office is closed, in which case the system shall notify the Division before the end of the next business day.

B. The Division has the discretion to allow the PWS, on a case by case basis, to forgo fecal coliform or *E. coli* testing on a total coliform-positive sample if that system assumes that the total coliform-positive sample is fecal coliform-positive or *E. coli* positive. Accordingly, the system shall notify the Division as specified in paragraph A of this Section and the provisions of Section 22.511B apply.

22.516 Response to Violation: A PWS which has exceeded the MCL for total coliforms in Section 22.511 must report the violation to the Division no later than the end of the next business day after it learns of the violation, and notify the public in accordance with Section 22.41. A PWS which has failed to comply with a coliform monitoring requirement, including the sanitary survey requirement, must report the monitoring violation to the Division within ten (10) days after the system discovers the violation, and notify the public in accordance with Section 22.41.

## 22.52 ANALYTICAL REQUIREMENTS

22.521 Analytical Methodology: The standard sample volume required for total coliform analysis, regardless of analytical method used, is one hundred (100) ml. Public water systems need only determine the presence or absence of total coliforms. A determination of total coliform density is not required. Public water systems must conduct total coliform analyses in accordance with one (1) of the following analytical methods:

A. Membrane Filter Technique: As set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition, Method 909, 909A, and 909B - pp. 8886-896; or Microbiological Methods for Monitoring the Environment, Water and Wastes, USEPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45628 (EPA-600/8-78-017, December 1978, available from ORD Publications, CERL, USEPA Cincinnati, Ohio 45268), Part III, Section B.2.1-2.6, pp. 108-112.

B. Multiple Tube Fermentation (MTF) Technique: As set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition, Method 908, 908A, and 908B -pp. 870-878, except that 10 fermentation tubes must be used; or Microbiological Methods for Monitoring the Environment, Water and Wastes, USEPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45628 (EPA-600/8-78-017, December 1978, available from ORD Publications, CERL, USEPA Cincinnati, Ohio 45268), Part III, Section

B.4.1-4.6.4, pp. 114-118 (Most Probable Number Method) except that 10 fermentation tubes must be used. NOTE- In lieu of the 10 tube MTF Technique specified in paragraph A above, a public water system may use the MTF Technique using either five (5) tubes (20 ml sample portions) or a single culture bottle containing a culture medium for the MTF Technique, i.e. lauryl tryptose broth (formulated as described in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition, Method 908A-pp. 872), as long as a 100 ml water sample is used in the analysis.

C. Minimal Medium ONPG-MUG (MMO-MUG) Test: As set forth in the article "National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of Total Coliforms and *Escherichia coli* from Drinking Water: Comparison with Presence-Absence Techniques" (Edberg et al.), Applied and Environmental Microbiology, Volume 55, pp. 1003-1008, April 1989. (Note: The MMO-MUG Test) is sometimes referred to as the Autoanalysis Colilert System).

D. Fecal Coliform Test: PWSs must conduct fecal coliform analysis in accordance with the following procedure. When the MTF Technique or Presence-Absence (P-A) Coliform Test is used to test for total coliforms, shake the lactose-positive presumptive tube or P-A bottle vigorously and transfer the growth with a sterile three (3) mm loop or sterile applicator stick into brilliant green lactose bile broth and EC medium to determine the presence of total and fecal coliforms, respectively. For EPA approved analytical methods which use a membrane filter, remove the membrane containing the total coliform colonies from the substrate with a sterile forceps and carefully curl and insert the membrane into a tube of EC medium. (The laboratory may first remove a small portion of selected colonies for verification.) Alternatively, swab the entire membrane filter surface with a sterile cotton swab and transfer the swab to the EC medium. (The cotton swab should not be left in the EC medium.) Gently shake the inoculated tube of EC medium to insure adequate mixing and incubate in a waterbath at  $44.5 \pm 0.2$  C for twenty-four (24) + 2 hours. Gas production of any amount in the inner fermentation tube of the EC medium indicates a positive fecal coliform test. The preparation of EC medium is described in Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 16th edition, Method 908C-pp.879, paragraph 1a. PWSs need only determine the presence or absence of fecal coliforms. A determination of fecal coliform density is not required.

## SECTION 22.6 INORGANIC AND ORGANIC CHEMICAL REQUIREMENTS

### 22.60 INORGANIC CHEMICAL REQUIREMENTS

22.601 PMCLs AND SMCLs: The following are the

inorganic PMCLs and SMCLs (mg/L - milligrams per liter).  
Compliance is determined pursuant to Section 22.602.

A. PMCLs

Substance MCL

Antimony (Sb)	0.006 mg/L
Arsenic (As)	0.05 mg/L
Asbestos	7 MF/L
Barium (Ba)	2 mg/L
Beryllium (Be)	0.004 mg/L
Cadmium (Cd)	0.005 mg/L
Chromium (Cr)	0.1 mg/L
Cyanide (Cn)	0.2 mg/L
Fluoride (F)	See Section 22.603
Lead (Pb)	0.02 mg/L
Mercury (Hg)	0.002 mg/L
Nickel (Ni)	0.1 mg/L
Nitrate-Nitrogen (NO3-N)	10 mg/L (See Section 22.602 I3)
Nitrite-Nitrogen (NO-N)	1 mg/L
Total Nitrate Nitrogen and Nitrite Nitrogen	10 mg/L
Selenium (Se)	0.05 mg/L
Thallium (Tl)	0.002 mg/L
Turbidity	See Section 22.701

\*MFL - million fibers per liter, with fiber length > 10 microns

B. SMCLs

Substance MCL

Aluminum	0.05-0.2 mg/L
Chloride (Cl)	250 mg/L
Color	15 color units
Copper (Cu)	1 mg/L
Corrosivity	Noncorrosive (See Section 22.71)
Foaming Agents	0.50 mg/L
Iron (Fe)	0.30 mg/L
Manganese (Mn)	0.05 mg/L
Odor	3 threshold odor number
pH	6.5 - 8.5
Silver	0.1 mg/L
Sulfate (SO4)	250 mg/L
Total Dissolved Solids (TDS)	500 mg/L
Zinc (Zn)	5 mg/L

~~C. The following maximum contaminant level for cadmium, chromium, mercury, nitrate, and selenium shall remain effective until July 30, 1992.~~

<del>Cadmium</del>	<del>0.01 mg/L</del>
<del>Chromium</del>	<del>0.05 mg/L</del>
<del>Mercury</del>	<del>0.002 mg/L</del>
<del>Nitrate</del>	<del>10.0 mg/L</del>
<del>Selenium</del>	<del>0.01 mg/L</del>

~~1. The following maximum contaminant level for lead shall remain effective until December 7, 1992.~~

~~Lead 0.05 mg/L~~

C. The Maximum Contaminant Level Goals (MCLG) for lead and copper are as follows:

Lead	0 mg/L
Copper	1.3 mg/L

22.602 SAMPLING AND ANALYTICAL REQUIREMENTS: Community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in Section 22.601 in accordance with this section. Non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in Section 22.601 in accordance with this section. Transient, non-community water systems shall conduct monitoring to determine compliance with the nitrate and nitrite maximum contaminant levels in Section 22.601 in accordance with this section.

A. Monitoring shall be conducted as follows:

1. Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment [hereafter called a sampling point] beginning in the compliance period starting January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

a. Groundwater systems with 150 or more service connections shall begin monitoring for Phase II and Phase V contaminants on January 1, 1993.

b. Groundwater systems with less than 150 service connections shall begin monitoring for Phase II contaminants on January 1, 1993 and for Phase V contaminants on January 1, 1996.

2. Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment [hereafter called a sampling point] beginning in the compliance period beginning January 1, 1993. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

NOTE: FOR PURPOSES OF THIS PARAGRAPH, SURFACE WATER SYSTEMS INCLUDE SYSTEMS WITH A COMBINATION OF SURFACE AND GROUND SOURCES.

a. Surface water systems with 150 or more service connections shall begin monitoring for Phase II and Phase V contaminants on January 1, 1993.

b. Surface water systems with less than 150 service connections shall begin monitoring for Phase II contaminants on January 1, 1993 and for Phase V contaminants on January 1, 1996.

3. If a system draws water from more than one source and the sources are combined before distribution, the

system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

4. The Division may reduce the total number of samples which must be analyzed by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed provided that the detection limit of the method used for analysis is less than one-fifth of the MCL. Compositing of samples must be done in the laboratory.

a. If the concentration in the composite sample is greater than or equal to one-fifth of the MCL of any inorganic chemical, then a follow-up sample must be taken within 14 days at each sampling point included in the composite. These samples must be analyzed for the contaminants which exceeded one-fifth of the MCL in the composite sample. Detection limits for each analytical method are the following:

#### DETECTION LIMITS FOR INORGANIC CONTAMINANTS

Contaminants	MCL (mg/L)	Method	Detection Limit (mg/L)
Antimony	0.006	Atomic Absorption furnace CP-Mass Spectrometry Hydride-Atomic Absorption	0.003 0.0008 6 0.0004 0.001
Asbestos	7MFL2	Transmission Electron Microscopy	0.01 MFL
Barium	2	Atomic Absorption furnace Technique Atomic Absorption direct aspiration	0.002 0.1
		Inductively Coupled Plasma	0.002 (0.001) 1
Beryllium	0.004	Atomic Absorption furnace xl Inductively Coupled Plasma <sup>3</sup> ICP-Mass Spectrometry	0.0002 0.00002 6 0.0003 0.0003
Cadmium	0.005	Atomic Absorption furnace Technique Inductively Coupled Plasma	0.0001 0.001 1
Chromium	0.1	Atomic Absorption furnace Technique Inductively Coupled Plasma	0.001 0.007 (0.001) 1
Cyanide	0.2	Distillation, Spectrophotometric <sup>4</sup> Distillation, Automated, Spectrophotometric <sup>4</sup> Distillation, Selective Electrode <sup>4</sup> Distillation, Amenable Spectrophotometric <sup>5</sup>	0.02 0.005 0.05 0.02
Mercury	0.002	Manual Cold Vapor Technique Automated Cold Vapor Technique	0.0002 0.0002
Nickel	0.1	Atomic Absorption furnace Inductively Coupled Plasma <sup>3</sup> ICP-Mass Spectrometry	0.001 0.0006 6 0.005 0.0005
Nitrate	10	Manual Cadmium Reduction Automated Hydrazine Reduction Automated Cadmium Reduction Ion Selective Electrode Ion Chromatography	0.01 0.01 0.05 1 0.01
Nitrite	1	Spectrophotometric Automated Cadmium Reduction Manual Cadmium Reduction Ion Chromatography	0.01 0.05 0.01 0.004

Selenium	0.05	Atomic Absorption furnace Atomic Absorption gaseous hydride	0.002 0.002
Thallium	0.002	Atomic Absorption furnace ICP-Mass Spectrometry	0.001 0.0007 6 0.0003

1 Using concentration technique in Appendix A to EPA Method 200.7.

2 MFL = million fibers per liter > 10 um.

3 Using a 2X Preconcentration step as noted in Method 200.7. Lower MDLs may be achieved when using a 4X preconcentration.

4 Screening method for total cyanides.

5 Measures "free" cyanides.

6 Lower MDLs are reported using stabilized temperature graphite furnace atomic absorption.

b. If the population served by the system is >3,300 persons, then compositing may only be permitted by the Division at sampling points within a single system. In systems serving <3,300 persons, the State may permit compositing among different systems provided the 5-sample limit is maintained.

c. If duplicates of the original sample taken from each sampling point used in the composite are available, the system may use these instead of resampling. The duplicates must be analyzed and the results reported to the Division within 14 days of collection

5. The frequency of monitoring for asbestos shall be in accordance with paragraph (B) of this section; the frequency of monitoring for antimony, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, and thallium shall be in accordance with paragraph (C) of this section; the frequency of monitoring for nitrate shall be in accordance with paragraph (D) of this section; and the frequency of monitoring for nitrite shall be in accordance with paragraph (E) of this section.

B. The frequency of monitoring conducted to determine compliance with the maximum contaminant level for asbestos specified in Section 22.601 shall be conducted as follows:

1. Each community and non-transient, non-community water system is required to monitor for asbestos during the first three-year compliance period of each nine-year compliance cycle beginning in the compliance period starting January 1, 1993.

2. If the system believes it is not vulnerable to either asbestos contamination in its source water or due to corrosion of asbestos-cement pipe, or both, it may apply to the Division for a waiver of the monitoring requirement in paragraph (B1) of this section. If the Division grants the waiver, the system is not required to monitor.

3. The Division may grant a waiver based on a consideration of the following factors:

a. Potential asbestos contamination of the water source, and

b. The use of asbestos-cement pipe for finished water distribution and the corrosive nature of the water.

4. A waiver remains in effect until the completion of the three-year compliance period. Systems not receiving a waiver must monitor in accordance with the provisions of paragraph (B1) of this section.

5. A system vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe shall take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

6. A system vulnerable to asbestos contamination due solely to source water shall monitor in accordance with the provision of paragraph (A) of this section.

7. A system vulnerable to asbestos contamination due both to its source water supply and corrosion of asbestos-cement pipe shall take one sample at each entry point after treatment and a minimum of one tap sample served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

8. A system which exceeds PMCL listed in Section 22.601 shall monitor quarterly beginning in the next quarter after the violation occurred.

9. The Division may decrease the quarterly monitoring requirement to the frequency specified in paragraph B1 of this section provided the Division has determined that the system is reliably and consistently below the maximum contaminant level. In no case can a Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface (or combined surface/ground) water system takes a minimum of four quarterly samples.

10. If monitoring data collected after January 1, 1990 are generally consistent with the requirements of this section then the Division may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.

C. The frequency of monitoring conducted to determine compliance with the maximum contaminant levels in Section 22.601 for antimony, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium shall be as follows:

1. Groundwater systems shall take one sample at each sampling point once every three (3) years. Surface Water systems [or combined surface/ground] shall take one sample annually at each sampling point beginning January 1, 1993.

2. The system may apply to the Division for a waiver from the monitoring frequencies specified in paragraph C(1) of this section.

3. A condition of the waiver shall require that a system shall take a minimum of one sample while the waiver is effective. The term during which the waiver is effective

shall not exceed one compliance cycle (i.e., nine years).

4. The Division may grant a waiver provided surface water systems have monitored annually for at least three years and groundwater systems have conducted a minimum of three rounds of monitoring. (At least one sample shall have been taken since January 1, 1990). Both surface and groundwater systems shall demonstrate that all previous analytical results were less than the maximum contaminant level. Systems that use a new water source are not eligible for a waiver until three rounds of monitoring from the new source have been completed.

5. In determining the appropriate reduced monitoring frequency, the Division shall consider:

a. Reported concentrations from all previous monitoring.

b. The degree of variation in reported concentrations; and

c. Other factors which may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the systems configuration, changes in the system's operating procedures, or changes in stream flows or characteristics.

6. A decision by the Division to grant a waiver shall be made in writing and shall set forth the basis for the determination. The determination may be initiated by the Division or upon an application by the public water system. The public water system shall specify the basis for its request. The Division shall review and, where appropriate, revise its determination of the appropriate monitoring frequency when the system submits new monitoring data or when other data relevant to the system's appropriate monitoring frequency become available.

7. Systems which exceed the MCLs as calculated in paragraph I of this Section shall monitor quarterly beginning in the next quarter after the violation occurred.

8. The Division may decrease the quarterly monitoring requirement to the frequencies specified in paragraphs C1 and C2 of this section provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case can the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.

D. All public water systems (community; non-transient, non-community; and transient, non-community systems) shall monitor to determine compliance with the maximum contaminant level for nitrate in Section 22.601.

1. Community and non-transient, non-community water systems served by groundwater systems shall monitor annually beginning January 1, 1993; systems served by surface water shall monitor quarterly beginning January 1, 1993.

2. For community and non-transient, non-community water systems, the repeat monitoring frequency

for groundwater systems shall be quarterly for at least one year following any one sample in which the concentration is >50 percent of the MCL. The Division may allow a groundwater system to reduce the sampling frequency to annually after four consecutive quarterly samples are reliably and consistently less than the MCL.

3. For community and non-transient, non-community water systems, the Division may allow a surface water system to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are <50 percent of the MCL. A surface water system shall return to quarterly monitoring if any one sample is >50 percent of the MCL.

4. Each transient non-community water system shall monitor annually beginning January 1, 1993.

5. After the initial round of quarterly sampling is completed, each community and non-transient non-community system which is monitoring annually shall take subsequent samples during the quarter(s) which previously resulted in the highest analytical result.

E. All public water systems (community; non-transient, non-community; and transient, non-community systems) shall monitor to determine compliance with the maximum contaminant level for nitrite in Section 22.601

1. All public water systems shall take one sample at each sampling point in the distribution system during the compliance period beginning January 1, 1993 and ending December 31, 1995.

2. After the initial sample, systems where an analytical result for nitrite is <50 percent of the MCL shall monitor at the frequency specified by the Division.

3. For community, non-transient, non-community, and transient non-community water systems, the repeat monitoring frequency for any water system shall be quarterly for at least one year following any one sample in which the concentration is >50 percent of the MCL. The Division may allow a system to reduce the sampling frequency to annually after determining the system is reliably and consistently less than the MCL.

4. Systems which are monitoring annually shall take each subsequent sample during the quarter(s) which previously resulted in the highest analytical result.

F. Confirmation Samples:

1. Where the results of sampling for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium indicate an exceedance of the maximum contaminant level, the Division may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point.

2. Where nitrate or nitrite sampling results indicate an exceedance of the maximum contaminant level, the system shall take a confirmation sample within 24 hours of the system's receipt of notification of the analytical results

of the first sample. Systems unable to comply with the 24-hour sampling requirement must immediately notify the consumers in the area served by the public water system in accordance with Section 22.41. Systems exercising this option must take and analyze a confirmation sample within two weeks of notification of the analytical results of the first sample.

3. If a Division-required confirmation sample is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with paragraph I of this section. The Division has the discretion to delete results of obvious sampling errors.

G. The Division may require more frequent monitoring than specified in paragraphs B, C, D and E of this section or may require confirmation samples for positive and negative results at its discretion.

H. Systems may apply to the Division to conduct more frequent monitoring than the minimum monitoring frequencies specified in this section.

I. Compliance with Section 22.601 shall be determined based on the analytical result(s) obtained at each sampling point:

1. For systems which are conducting monitoring at a frequency greater than annual, compliance with the maximum contaminant levels for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, and thallium is determined by a running annual average at each sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any one sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any sample below the detection limit shall be calculated at zero for the purpose of determining the annual average.

2. For systems which are monitoring annually, or less frequently, the system is out of compliance with the maximum contaminant levels for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, and thallium if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the Division, the determination of compliance will be based on the average of two samples.

3. Compliance with the maximum contaminant levels for nitrate and nitrite is determined based on one sample if the levels of these contaminants are below the MCLs. If the levels of nitrate and/or nitrite exceed the MCLs in the initial sample, a confirmation sample is required and compliance shall be determined based on the average of the initial and confirmation samples.

4. If a public water system has a distribution system separable from other parts of the distribution system

with no interconnections, the Division may allow the system to give public notice to only the area served by that portion of the system which is out of compliance.

J. Each public water system shall monitor at the time designated by the Division during each compliance period.

K. At the discretion of the Division, nitrate levels not to exceed 20 mg/L may be allowed in NCWS and NTNCWS if the supplier of water demonstrates to the satisfaction of the Division that:

1. Such water will not be available to children under one (1) year of age;
2. There will be continuous posting of the fact that nitrate levels exceed ten (10) mg/L and the potential health effects of exposure and;
3. No adverse health effects shall result.

#### 22.603 Fluoride (F):

A. Where fluoridation has been or will be instituted as provided by Delaware Law and the fluoride content of a water supply is less than 0.8 mg/L, fluoride should be adjusted to provide a concentration within a range of 0.8-1.2 mg/L and shall not exceed 1.8 mg/L. Defluoridation of water shall be provided when the natural fluoride concentration exceeds 1.8 mg/L. In addition to the sampling and analysis required by Section 22.605, fluoridated and defluoridated water supplies shall be sampled and analyzed daily by the supplier of water at a representative point(s) in the water supply system. The fluoride levels shall be reported to the Division pursuant to Section 22.401.

B. All municipal water supplies, whether municipally owned or privately owned, shall comply with paragraph A of this section. All affected water supplies shall submit cost estimates to the Department of Health and Social Services no later than November 15, 1998.

#### 22.604 Sodium (Na):

A. The supplier of water for a CWS shall collect and analyze one (1) sample per plant at the entry point of the distribution system for the determination of sodium concentration levels; samples must be collected and analyzed annually for systems utilizing surface water sources in whole or in part and at least every three (3) years for systems utilizing solely ground water sources. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with Division approval be considered one (1) treatment plant for determining the minimum number of samples. The supplier of water may be required by the Division to collect and analyze water samples for sodium more frequently in locations where the sodium content is variable.

B. The supplier of water shall report to the Division the results of analyses for sodium pursuant to Section

22.401.

C. The supplier of water shall notify appropriate local and State public health officials of the sodium levels by written notice by direct mail within three (3) months. A copy of each notice required to be provided by this paragraph shall be sent to the Division within ten (10) days of issuance. The supplier of water is not required to notify appropriate local and State public health officials of the sodium levels where the Division provides such notices in lieu of the supplier.

D. Analysis for sodium shall performed by the flame photometric method in accordance with the procedures described in "Standard Methods for the EXamination of Water Wastewater" 14th Edition, pp. 250-253, or by Method 273.1, Atomic Absorption - Direct Aspiration or Method 273.2, Atomic Absorption Graphite Furnace, in "Methods for Chemical Analysis of Water and Waste," EMSL Cincinnati, EPA, 1979, or by Method D1428-64(a) in Annual Book of ASTM Standards, part 31, Water or any alternate analytical technique approved by the Division.

22.605 Inorganic Compliance Determination: Analysis for the purpose of determining compliance with Section 22.601 shall be in accordance with the following:

A. PMCL analyses for all CWSs utilizing surface water sources shall be conducted annually. SMCL analyses shall be performed at the discretion of the Division.

B. PMCL analyses for all CWSs utilizing only ground water sources shall be conducted at three (3) year intervals. SMCL analyses shall be performed at the discretion of the Division.

C. For NCWSs and NTNCWSs, whether supplied by surface or ground water sources, analyses for nitrate shall be conducted at intervals determined by the Division.

D. The Division has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by its sanctioned representatives and agencies.

E. If the result of an analysis made pursuant to paragraphs A, B and C indicates that the level of any primary contaminant listed in Section 22.601, excluding nitrates, exceeds the PMCL, the supplier of water shall report to the Division within seven (7) days and initiate three (3) additional analyses at the same sampling point with one (1) month.

F. When the average of four (4) analyses made pursuant to paragraph E of this section, rounded to the same number of significant figures as the PMCL for the substance in question, exceeds the PMCL, the supplier of water shall notify the Division pursuant to Section 22.40 and give notice to the public pursuant to Section 22.41. Monitoring after public notification shall be at a frequency designated by the Division and shall continue until the PMCL has not been exceeded in two (2) successive samples or until a monitoring

schedule as a condition to a variance, exemption or enforcement action shall become effective.

G. The provision of paragraphs E and F of this Section notwithstanding compliance with the PMCL for nitrate shall be determined on the basis of the mean of two (2) analyses. When a level exceeding the PMCL for nitrate is found, a second analysis shall be initiated within twenty-four (24) hours, and if the mean of the two (2) analyses exceeds the PMCL, the supplier of water shall report his findings to the Division pursuant to Section 22.40 and shall notify the public pursuant to Section 22.41.

H. For the initial analyses required by paragraphs A, B and C of this Section, data for surface waters acquired within one (1) year prior to the effective date and data for ground waters acquired within three (3) years prior to the effective date of this Section may be substituted at the discretion of the Division.

22.606 Analytical Methodology: Analyses conducted to determine compliance with Section 22.601 for inorganic chemicals shall be made in accordance with the following methods.

A. PMCLs11

1. Antimony--Atomic Absorption Furnace Technique14 using Method1 204.2 or Method3 3113; Atomic Absorption Platform Technique14 using Method9 220.9; ICP-Mass Spectrometry14 using Method9 200.8; Hydride-Atomic Absorption15 using Method2 D-3697-87.

2. Arsenic--Atomic Absorption Furnace Technique using Method1 206.2 or Method3 30415; Atomic Absorption Gaseous Hydride using Method1 206.3, Method2 D2972-84B, Method3 303E or Method4 I-3063-85; Inductively Coupled Plasma using Method1 200.7A8; or Spectrophotometric Silver Diethyldithiocarbamate using Method1 206.4, Method2 D2972-84A or Method3 307B after C(4A).

3. Asbestos--Transmission Electron Microscopy "Analytical Method For Determination of Asbestos Fiber in Water," EPA-600/4-83-043, September 1983, U.S. EPA, Environmental Research Laboratory, Athens, Georgia 30613.

4. Barium--Atomic Absorption Direct Aspiration14 using Method1 208.1 or Method3 3111D; Atomic Absorption Furnace Technique14 using Method1 208.2, or Method3 3113B; or Inductively Coupled Plasma8,14 using Method1 200.7 or Method3 3120.

5. Beryllium--Atomic Absorption Furnace Technique14 using Method1 210.2 or Method2 D-3645-84B or Method3 3113; Atomic Absorption Platform Technique14 using Method9 200.9; Inductively Coupled Plasma8,14 using Method9 200.7 or Method3 3120; ICP-Mass Spectrometry14 using Method9 200.8.

6. Cadmium--Atomic Absorption Furnace Technique14 using Method1 213.2, Method3 3113B; or

Inductively Coupled Plasma14 using Method1 200.7.

7. Chromium--Atomic Absorption Furnace Technique14 using Method1 218.2, Method3 3113B; or Inductively Coupled Plasma14 using Method1 200.7 or Method3 3120.

8. Cyanide--Spectrophotometric Distillation using Method1 335.2 or Method2 D-2036-89A or Method3 4500-CN-D or Method4 I330085; Automated Spectrophotometric Distillation using Method1 335.3 or Method3 4500-CN-E; Selective Electrode Distillation using Method2 D-2036-89A or Method3 4500-CN-F; Amenable Spectrophotometric Distillation using Method1 335.1 or Method2 D-2036-89B or Method3 4500-CN-G.

9. Fluoride--Colorimetric SPADNS with Distillation using Method1 340.1, Method2 D1179-72A or Method3 43A and C; Potentiometric Ion Selective Electrode using Method1 340.2, Method2 D1179-72B or Method3 413B; Automated Alizarin Fluoride Blue with Distillation using Method1 340.3, Method3 413E or Method5 129-71W; or Automated Ion Selective Electrode using Method6 380-75WE.

10. Lead--Atomic Absorption Furnace Technique using Method1 239.2

11. Mercury--Manual Cold Vapor Technique15 using Method1 245.1, Method2 D3223-86 or Method3 3112B; or Automated Cold Vapor Technique15 using Method1 245.2.

12. Nickel--Atomic Absorption Furnace Technique14 using Method1 249.2 or Method3 3113; Atomic Absorption Platform Technique14 using Method9 200.9; Atomic Absorption Direct Aspiration14 using Method1 249.1 or Method3 3111B; Inductively Coupled Plasma14 using Method9 200.7 or Method3 3120; ICP-Mass Spectrometry14 using Method9 200.8.

13. Nitrate-N--Manual Cadmium Reduction using Method1 353.3, Method2 D3867-90 or Method3 4500-NO3-E; Automated Hydrazine Reduction using Method1 353.1, Automated Cadmium Reduction using Method1 353.2, Method2 D3867-90 or Method3 4500-NO3-F; Ion Selective Electrode using Method7 WeWWG/5880; or Ion Chromatography using Method11 300.0 or Method10 B-1011.

14. Nitrite-N--Spectrophotometric using Method1 354.1 Manual Cadmium Reduction using Method1 353.3, Method2 D3867-90 or Method3 4500-NO3-E; Automated Cadmium Reduction using Method1 353.2, Method2 D3867-90 or Method3 4500-NO3-F; or Ion Chromatography using Method11 300.0 or Method10 B-1011.

15. Selenium--Atomic Absorption Gaseous Hydride15 Using Method2 D3859-84A, Method3 3114B; Atomic Absorption Furnace Technique13 14 using Method1 270.2, Method2 D3859-88 or Method3 3113B.

16. Thallium--Atomic Absorption Furnace Technique14 using Method1 279.2 or Method3 3113;

Atomic Absorption Platform Technique<sup>14</sup> using Method<sup>9</sup> 200.9; ICP-Mass Spectrometry<sup>14</sup> using Method<sup>9</sup> 200.8.

B. SMCLs

1. Aluminum--Atomic Absorption Direct Aspiration using Method<sup>1</sup> 202.1, Method<sup>3</sup> 303C, or Method<sup>4</sup> I-305i-84; Atomic Absorption Graphite Furnace Technique using Method<sup>1</sup> 202.2 or Method<sup>3</sup> 304; Atomic Absorption Platform Technique using Method<sup>9</sup> 200.9; Inductively Coupled Plasma Technique using Method<sup>9</sup> 200.7 or Method<sup>3</sup> 3120B; ICP-Mass Spectrometry using Method<sup>9</sup> 200.8.

2. Chloride--Potentiometric using Method<sup>3</sup> 407C; or Ion Chromatography using Method<sup>1</sup> 300.0, Method<sup>2</sup> D4327 or Method<sup>3</sup> 429.

3. Color--Colorimetric Platinum Cobalt using Method<sup>1</sup> 110.2; Visual Comparison using Method<sup>3</sup> 204A; or Spectrophotometric using Method<sup>3</sup> 204B.

4. Foaming Agents--Methylene Blue Active Substances using Method<sup>1</sup> 425.1; or Anionic Surfactants as MBAS using Method<sup>3</sup> 512B.

5. Iron--Atomic Absorption Direct Aspiration using Method<sup>1</sup> 236.1; Atomic Absorption Furnace Technique using Method<sup>1</sup> 236.2; or Metals by Atomic Absorption Spectrometry using Method<sup>3</sup> 303.

6. Manganese--Atomic Absorption Direct Aspiration using Method<sup>1</sup> 243.1; Atomic Absorption Furnace Technique using Method<sup>1</sup> 243.2; or Metals by Atomic Absorption Spectrometry using Method<sup>3</sup> 303.

7. Odor--Threshold Odor Consistent Series using Method<sup>1</sup> 140.1; or Odor using Method<sup>3</sup> 207.

8. pH--Potentiometric using Method<sup>1</sup> 150.1, Method<sup>2</sup> D1293-84A or B, or Method<sup>3</sup> 423.

9. Sulfate--Turbidimetric using Method<sup>1</sup> 375.4 or Method<sup>2</sup> D516-82A; or Ion Chromatography using Method<sup>1</sup> 300.0 or Method<sup>2</sup> D4327.

10. Total Dissolved Solids (Total Filterable Residue)--Gravimetric using Method<sup>1</sup> 160.1, Method<sup>3</sup> 209B or Method<sup>4</sup> I-1750-84.

11. Zinc--Atomic Absorption Direct Aspiration using Method<sup>1</sup> 289.1; Atomic Absorption Furnace Technique using Method<sup>1</sup> 289.2; or Metals by Atomic Absorption Spectrometry using Method<sup>3</sup> 303.

12. Any alternate analytical technique approved by the Division.

1 "Methods of Chemical analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268 (EPA-600/4-79-020), March 1985. Available from ORD Publications, CERL, EPA, Cincinnati, Ohio 45268.

2 Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19013.

3 "Standard Methods for the Examination of Water and Wastewater," 17th Edition, American Public

Health Association, American Water Works Association, Water Pollution Control Federation, 1985.

4 "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Techniques of Water-Resources Investigations of the United States Geological Survey Book 5, Chapter A-1, Third Edition, 1989. Available at Superintendent of Documents, U.S. Government Printing Office, Washington D.C.

5 "Fluoride in Water and Wastewater. Industrial Method #129-71 W." Technicon Industrial Systems. Tarrytown, New York 10591, December 1972.

6 "Fluoride in Water and Wastewater," Technicon Industrial Systems. Tarrytown, New York 10591, February 1976.

7 "Orion Guide to Water and Wastewater Analysis." Form WeWWG/5880, p. 5, 1985. Orion Research, Inc., Cambridge, Maryland.

8 "Inductively Coupled Plasma Atomic Emission Analysis of Drinking Water," Appendix to Method 200.7, September 1985. U.S.E.P.A. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

9 "Methods for the Determination of Metals in Environmental Samples," Available at NTIS, PB 91-231498.

10 "Water Test Method for Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatograph, Method B-1011," Millipore Corporation, Waters Chromatography Division, 34 Maple Street, Milford, MA 001757.

11 "Method 300. Determination of Inorganic Anions in Water by Ion Chromatography," Inorganic Chemistry Branch, Environmental Monitoring Systems Laboratory, August 1991.

12 The addition of 1 mL of 30% H<sub>2</sub>O<sub>2</sub> to each 100 mL of standards and samples is required before analysis.

13 Prior to dilution of the Arsenic and Selenium calibration standards, add 2 mL of 30% H<sub>2</sub>O<sub>2</sub> for each 100 mL of standard.

14 Samples that contain less than 1 NTU (nephelometric turbidity unit) and are properly preserved (conc HNO<sub>3</sub> to pH < 2) may be analyzed directly (without digestion) for total metals, otherwise digestion is required. Turbidity must be measured on the preserved samples just prior to the initiation of metal analysis. When digestion is required, the total recoverable technique as defined in the method must be used.

15 For the gaseous hydride determinations of antimony and selenium and for the determination of mercury by the cold vapor techniques, the proper digestion technique as defined in the method must be followed to ensure the element is in the proper state for analyses.

16 For approved analytical procedures for

metals, the technique applicable to total metals must be used.

C. Sample Collection and Preservation: - Sample collection for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium and thallium under this section shall be conducted using the sample preservation method(s), container, and maximum holding time procedures specified in the table below:

Contaminant	Preservative <sup>1</sup>	Container <sup>2</sup>	Time <sup>3</sup>
Antimony	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Asbestos	Cool, 4 oC	P or G	6 months
Barium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Beryllium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Cadmium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Chromium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Cyanide	Cool 4o C, NaOH to pH >12.4	P or G	14 days
Fluoride	None	P or G	1 month
Mercury	Conc HNO <sub>3</sub> to pH <2	P or G	28 days
Nickel	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Nitrate:			
-Chlorinated	Cool, 4 oC	P or G	28 days
-Non-chlorinated	Conc H <sub>2</sub> SO <sub>4</sub> to pH <2	P or G	14 days
Nitrite	Cool, 4 oC	P or G	48 hours
Selenium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months
Thallium	Conc HNO <sub>3</sub> to pH <2	P or G	6 months

1 If HNO<sub>3</sub> cannot be used because of shipping restrictions, sample may be initially preserved by icing and immediately shipped to the laboratory. Upon receipt in the laboratory, the sample must be acidified with conc HNO<sub>3</sub> to pH <2. At time of analysis, sample container should be thoroughly rinsed with 1:1 HNO<sub>3</sub>; washings should be added to sample.

2 P = plastic, hard or soft; G = glass, hard or soft.

3 In all cases, samples should be analyzed as soon after collection as possible.

4 See method(s) for the information for preservation.

D. Lab Approval: Analysis under this section shall only be conducted by laboratories that have received approval by EPA or the State of Delaware. Laboratories may conduct sample analysis under provisional certification until January 1, 1996. To receive approval to conduct analyses for antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium the laboratory must:

1. Analyze Performance Evaluation samples which include those substances provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the State of Delaware.

2. Achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminants	Acceptance limit
Antimony	6#30 at $\geq 0.006$ mg/l

Asbestos 2 Standard deviations based on study statistics

Barium	+15% at $\geq 0.15$ mg/l
Beryllium	+15% at $\geq 0.001$ mg/l
Cadmium	+20% at $\geq 0.002$ mg/l
Chromium	$\pm 15\%$ at $\geq 0.01$ mg/l
Cyanide	$\pm 25\%$ at $\geq 0.1$ mg/l
Fluoride	$\pm 10\%$ at $\geq 1$ to 10 mg/l
Mercury	$\pm 30\%$ at $\geq 0.0005$ mg/l
Nickel	$\pm 15\%$ at $\geq 0.01$ mg/l
Nitrate	$\pm 10\%$ at $\geq 0.4$ mg/l
Nitrite	$\pm 15\%$ at $\geq 0.4$ mg/l
Selenium	$\pm 20\%$ at $\geq 0.01$ mg/l
Thallium	$\pm 30\%$ at $\geq 0.002$ mg/l

22.607 Lead (Pb) and Copper (Cu): - Unless otherwise indicated, each of the provisions of this Section applies to CWSs and NTNCWSs. The requirements in Section (22.607) shall take effect November 9, 1992.

#### A. General Requirements:

##### 1. Action Level:

a. The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with Section 22.607(G) is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).

b. The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with Section 22.607(G) is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).

c. The 90th percentile lead and copper levels shall be computed as follows:

1. The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

2. The number of samples taken during the monitoring period shall be multiplied by 0.9.

3. The contaminant concentration in the numbered sample yielded by the calculation in paragraph 1C(2) is the 90th percentile contaminant level.

4. For water systems serving fewer than 100 people that collect five samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

##### 2. Corrosion Control Treatment Requirements:

a. All water systems shall install and operate optimal corrosion control treatment as defined in Section 22.147.

b. Any water system that complies with the applicable corrosion control treatment requirements specified by the Division under Sections 22.607 B and C shall be deemed in compliance with each treatment requirement contained in paragraph 2(a) of this section.

3. Source Water Treatment Requirements: Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the Division under Section 22.607D.

4. Lead Service Line Replacement: Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in Section 22.607E.

5. Public Education Requirements: Any system exceeding the lead action level shall implement the public education requirements contained in Section 22.607F.

6. Monitoring and Analytical Requirements: Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this Section shall be completed in compliance with Sections 22.607 G, H, I and L.

7. Reporting Requirements: Systems shall report to the Division any information required by the treatment provisions of this Section and Section 22.607J.

8. Recordkeeping Requirements: Systems shall maintain records in accordance with Section 22.607K.

9. Violation of National Primary Drinking Water Regulations: Failure to comply with the applicable requirements of Section 22.607 including requirements established by the Division pursuant to these provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.

B. Applicability of Corrosion Control Treatment Steps for Small, Medium Size and Large Water Systems:

1. Systems shall complete the applicable corrosion control treatment requirements described in Section 22.607C by the deadlines established in this section.

a. A large system (serving >50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (4) of this section, unless it is deemed to have optimized corrosion control under paragraph 2(b) or 2(c) of this section.

b. A small system (serving <3300 persons) and a medium-size system (serving >3,300 and <50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (5) of this section, unless it is deemed to have optimized corrosion control under paragraph 2(a), 2(b) or 2(c) of this section.

2. A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one of the following criteria:

a. A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with Section 22.607(G).

b. Any water systems may be deemed by the Division to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the Division that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the division makes this determination, it shall provide the systems with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with Section 22.607(C)(6). A system shall provide the Division with the following information in order to support a determination under this paragraph.

1. The results of all test samples collected for each of the water quality parameters in section 22.607(C)3(a).

2. A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in Section 22.607(C)3(a), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment.

3. A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumer's taps; and

4. The results of tap water samples collected in accordance with Section 22.607G at least once every six months for one year after corrosion control has been installed.

c. Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with Section 22.607(G) and source water monitoring conducted in accordance with Section 22.607(I) that demonstrates for two consecutive six-month monitoring periods that the difference between the 90th percentile tap water lead level computed under Section 22.607(A)(1)(c), and the highest source water lead concentration, is less than the Practical Quantitation Level (PQL) for lead specified in Section 22.607(L) (2)(c).

3. Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to Section 22.607(G) and submits the results to the Division. If any such water system

thereafter exceeds the lead or copper action level during any monitoring period, the system (or the Division, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The Division may require a system to repeat treatment steps previously completed by the system where the Division determines that this is necessary to properly implement the treatment requirements of this section. The Division shall notify the system in writing of such a determination and explain the basis for its decision.

#### 4. Treatment Steps and Deadlines for Large Systems:

a. Except as provided in paragraph 2(b) and 2(c) of this section, large systems shall complete the following corrosion control treatment steps (described in the referenced portions of Sections 22.607(C), (G) and (H) by the indicated dates.

Step 1: The system shall conduct two six month initial monitoring periods by January 1, 1993.

Step 2: The system shall complete corrosion control studies, Section 22.607(C)3, in 18 months, by July 1, 1994.

Step 3: The Division shall designate optimal corrosion control treatment, Section 22.607(C)4, in 6 months, by January 1, 1995.

Step 4: The system shall install optimal corrosion control treatment, Section 22.607(C)5, in 24 months, by January 1, 1997.

Step 5: The system shall complete followup sampling, Section 22.607(G)4(b) and Section 22.607 (H)3, in 12 months, by January 1, 1998

Step 6: The Division shall review installation of treatment and designate optimal water quality control parameters, Section 22.607(C)6, in 6 months, by July 1, 1998.

Step 7: The system shall operate in compliance with the Division specified optimal water quality control parameters, Section 22.607(C)7, and continue to conduct tap sampling, Section 22.607(G)4 and Section 22.607(H)4.

#### 5. Treatment Steps and Deadlines for Small and Medium-Size Systems:

a. Except as provided in paragraph (2) of this section, small and medium-size systems shall complete the following corrosion control treatment steps (described in the referenced portions of Section 22.607 (C), (G) and (H) by the indicated time periods.

Step 1: The system shall conduct initial tap sampling, Section 22.607(G)4(a) and Section 22.607 (H)2, until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under Section 22.607(G)4(d). A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment, Section 22.607 (C)1, within six months after it exceeds one of the action levels.

Step 2: Within 12 months after a system exceeds the lead or copper action level, the Division may require the system to perform corrosion control studies. The Division shall specify optimal corrosion control treatment, Section 22.607(C)4, within the following time frames.

1. For medium-size systems, within 18 months after such system exceeds the lead or copper action level.

2. For small systems, within 24 months after such system exceeds the lead or copper action level.

Step 3: If the Division requires a system to perform corrosion control studies under step 2, the system shall complete the studies, Section 22.607(C)3, within 18 months after the Division requires that such studies be conducted.

Step 4: If the system has performed corrosion control studies under step 2, the Division shall designate optimal corrosion control treatment, Section 22.607(C)4, within 6 months after completion of step 3.

Step 5: The system shall install optimal corrosion control treatment, Section 22.607(C)5, within 24 months after the Division designates optimal corrosion control treatment.

Step 6: The system shall complete follow-up sampling, Section 22.607(G)4(b) and Section 22.607(H)3, within 36 months after the Division designates optimal corrosion control treatment.

Step 7: The Division shall review the systems's installation of treatment and designate optimal water quality control parameters, Section 22.607(C)6, within 6 months after completion of Step 6.

Step 8: The system shall operate in compliance with the Division-designated optimal water quality control parameters, Section 22.607(C)7, and continue to conduct tap sampling, Section 22.607(G)4(c) and Section 22.607 (H)4.

C. Description of Corrosion Control Treatment Requirements: Each System shall complete the corrosion control treatment requirements described below which are applicable to such systems under Section 22.607(B).

1. System Recommendation Regarding Corrosion Control Treatment: Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (3)(a) of this section which the system believes constitutes optimal corrosion control for that system. The Division may require the system to conduct additional water quality parameter monitoring in accordance with Section 22.607(H)(2) to assist the Division in reviewing the system's recommendation.

2. Division Decision to Require Studies of Corrosion Control Treatment (Applicable to Small and Medium Size Systems): The Division may require any small or medium-size system that exceeds the lead or copper action level to perform corrosion control studies under

paragraph (3) of this section to identify optimal corrosion control treatment for the system.

3. Performance of Corrosion Control Studies:

a. Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

1. Alkalinity and pH adjustment;
2. Calcium hardness adjustment; and
3. The addition of a phosphate or silicate

based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

b. The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

c. The water system shall measure the following water quality parameters in any tests conducted under this paragraph before and after evaluating the corrosion control treatment listed above:

1. Lead;
2. Copper;
3. pH;
4. Alkalinity;
5. Calcium;
6. Conductivity;
7. Orthophosphate (when an inhibitor

containing a phosphate compound is used);

8. Silicate (when a inhibitor containing a silicate compound is used);

9. Water temperature.

d. The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

1. Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

2. Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

e. The water system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatments processes.

f. On the basis of an analysis of the data generated during each evaluation, the water system shall

recommend to the Division in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (3)(a) through (e) of this section.

4. Division Designation of Optimal Corrosion Control Treatment:

a. Based upon consideration of available information including, where applicable, studies performed under paragraph (3) of this section and a system's recommended treatment alternative, the Division shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (3)(a) of this section. When designating optimal treatment the Division shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other quality treatment processes.

b. The Division shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination within 6 months of receiving follow up samples. If the Division requests additional information to aid its review, the water system shall provide the information.

5. Installation of Optimal Corrosion Control: Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the Division under paragraph (4) of this section.

6. Division Review of Treatment and Specification of Optimal Water Quality Control Parameters: The Division shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the Division in paragraph (4) of this section. Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the Division shall designate:

a. A minimum value or a range of values for pH measured at each entry point to the distribution system;

b. A minimum pH value measured in all tap samples. Such value shall be equal to or greater than 7.0 unless the Division determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

c. If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Division determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

d. If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

e. If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples. The values for the applicable water quality control parameters listed above shall be those that the Division determines to reflect optimal corrosion control treatment for the system. The Division may designate values for additional water quality control parameters determined by the Division to reflect optimal corrosion control for the system. The Division shall notify the system in writing of these determinations and explain the basis for its decisions.

7. Continued Operation and Monitoring: All systems shall maintain water quality parameter values at or above minimum values or within a range designated by the Division under paragraph (6) of this section in each sample collected under Section 22.607 (H)4. If the water quality parameter value of any sample is below the minimum value or outside the range designated by the Division, then the system is out of compliance with this paragraph. As specified in Section 22.607 (H)4, the system may take a confirmation sample for any water quality parameter value not later than 3 days after the first sample. If a confirmation sample is taken, the result must be averaged with the first sampling result and the average must be used for any compliance determination under this paragraph. The Division has the discretion to delete results of obvious sampling errors from this calculation.

8. Modification of Division's Corrosion Control Treatment Decision: Upon its own initiative, or in response to a request by the water system or other interested party, the Division may modify treatment determination. The requests in writing must explain why the change is appropriate and provide supporting documentation. The treatment may be changed when the Division determines that it is necessary for the water system to continue optimizing corrosion control. The Division's decision must specify new treatment, explain basis for decision, and provide for implementation.

9. EPA Treatment Decisions in Lieu of the Division's Decisions: The regional administrator may issue federal determinations in lieu of the Division's determinations when:

a. The Division fails to issue a determination in a timely manner.

b. The Division abuses its discretion in a substantial number of cases or in cases affecting large populations.

c. The technical basis of the Division's decision is indefensible in federal enforcement action(s).

D. Source Water Treatment Requirements: Systems shall complete the applicable source water monitoring and

treatment requirements (described in the referenced portions of paragraph (2) of this section, and in Section 22.607(G) and (I)) by the following deadlines:

1. Deadlines for Completing Source Water Treatment Steps:

Step 1:A system exceeding the lead or copper action level shall complete lead and copper source water monitoring, Section 22.607 (I)2, and make a treatment recommendation to the Division, Section 22.607(D)2(a), within 6 months after exceeding the lead or copper action level.

Step 2:The Division shall make a determination regarding source water treatment, Section 22.607(D)2(b) within 6 months after submission of monitoring results under step 1.

Step 3:If the Division requires installation of source water treatment, the system shall install the treatment, Section 22.607(D)2(c), within 24 months after completion of step 2.

Step 4:The system shall complete follow-up tap water monitoring, Section 22.607(G)4(b), and source water monitoring, Section 22.607(I)3, within 36 months after completion of step 2.

Step 5:The Division shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels for lead and copper, Section 22.607(D)2(d), within 6 months after completion of step 4.

Step 6:The system shall operate in compliance with the Division-specified maximum permissible lead and copper source water levels, Section 22.607(D)2(d), and continue source water monitoring, Section 22.607(I)4).

2. Description of Source Water Treatment Requirements:

a. System Treatment Recommendation: Any system which exceeds the lead or copper action level shall recommend in writing to the Division the installation and operation of one of the source water treatments listed in paragraph (2b) of this section. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at user's taps.

b. Division Determination Regarding Source Water Treatment: The Division shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the Division determines that treatment is needed, the Division shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following: ion exchange, reverse osmosis, lime softening or coagulation/filtration. If the Division

request additional information to aid in its review, the water system shall provide the information by the date specified by the Division in its request. The Division shall notify the system in writing of its determination and set forth the basis for its decision.

c. Installation of Source Water Treatment: Each system shall properly install and operate the source water treatment designated by the Division under paragraph (2b) of this section.

d. Division Review of Source Water Treatment and Specification of Maximum Permissible Source Water Levels: The Division shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the Division. Based upon its review, the Division shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The Division shall notify the system in writing and explain the basis for its decision.

e. Continued Operation and Maintenance: Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the Division at each sampling point monitored in accordance with Section 22.607(I). The system is out of compliance with this paragraph if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the Division.

f. Modification of Division Treatment Decisions: Upon its own initiative or in response to a request by a water system or other interested party, the Division may modify its determination of the source water treatment under paragraph (2b) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (2d) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The Division may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing and set forth the new treatment requirements, explain the basis for the Division's decision and provide an implementation schedule for completing the treatment modifications.

g. EPA Treatment Decisions in Lieu of the Division's Decisions: The regional administrator may issue federal determinations in lieu of the Division's determination when:

1. The Division fails to issue a

determination in a timely manner.

2. The Division abuses its discretion in a substantial number of cases or in cases affecting large populations.

3. The technical basis of the Division's decision is indefensible in federal enforcement action(s).

E. Lead Service Line Replacement Requirements:

1. Systems that fail to meet the lead action level in tap samples taken pursuant to Section 22.607(G)4(b) after installing corrosion control and/or source water treatment (whichever sampling occurs later) shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of Section 22.607(B) or (D) for failure to install source water or corrosion control treatment, the Division may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under Section 22.607 (G)4(b) has passed.

2. A system shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The systems shall identify the initial number of lead service lines in its distribution system based upon a materials evaluation, including the evaluation required under Section 22.607(G)1. The first year of lead service line replacement shall begin on the date the action level was exceeded in tap sampling referenced in paragraph (1) of this section.

3. A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line taken pursuant to Section 22.607(G)2(c), is less than or equal to 0.015 mg/L.

4. A water system shall replace the entire service line (up to the building inlet) unless it demonstrates to the satisfaction of the Division under paragraph (5) of this section that it control less than the entire service line. In such cases, the system shall replace the portion of the line which the Division determines is under the system's control. The system shall notify the user served by the line that the system will replace the portion of the service line under its control and shall offer to replace the building owner's portion of the line, but is not required to bear the cost of replacing the building owner's portion of the line. For buildings where only a portion of the lead service line is replaced, the water system shall inform the resident(s) that the system will collect a first flush tap water sample after partial replacement of the service line is completed if the resident(s) so desire. In cases where the resident(s) accept the offer, the system shall collect the sample and report the results to the resident(s) within 14 days following partial lead service line replacement.

5. A water system is presumed to control the entire lead service line (up to the building inlet) unless the

system demonstrates to the satisfaction of the Division, in a letter submitted under Section 22.607(J)5(d), that it does not have any of the following forms of control over the entire line (as defined by Division statutes, municipal ordinances, public service contracts or other applicable legal authority); authority to set standards for construction, repair, or maintenance of the line, authority to replace, repair, or maintain the service line, or ownership of the service line. The Division shall review the information supplied by the system and determine whether the system controls less than the entire service line and, in such cases, shall determine the extent of the system's control. The Division's determination shall be in writing and explain the basis for its decision.

6. The Division shall require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where such a shorter replacement schedule is feasible. The Division shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in paragraph (1) of this section.

7. Any system may cease replacing lead service lines whenever lead service line samples collected pursuant to paragraph (1) meet the lead action level during each of two consecutive monitoring periods and the system submits the results to the Division. If the lead service line samples in any such water system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines, pursuant to paragraph (2) in this section.

8. To demonstrate compliance with paragraphs (1) through (4) of this section, a system shall report to the Division the information specified in Section 22.607(J)5.

F. Public Education and Supplemental Requirements: A water system that exceeds the lead action level based on tap water samples collected in accordance with Section 22.607(G) shall deliver the public education materials contained in paragraphs (1) and (2) of this section in accordance with the requirements in paragraph (3) of this section.

1. Content of Written Materials: A water system shall include the following text in all of the printed materials it distributes through its lead public education program. Any additional information presented by a system shall be consistent with the information below and be in plain English that can be understood by laypersons.

a. Introduction: The United States Environmental Protection Agency (EPA) and (insert name of water supplier) are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in

place to minimize lead in your drinking water by (insert date when corrosion control will be completed for your system). This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at (insert water system's phone number). This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

b. Health effects of Lead: Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination-like dirt and dust-that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

c. Lead in Drinking Water:

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes, and other plumbing materials to 8.0%.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

d. Steps You Can Take in the Home to

**Reduce Exposure to Lead in Drinking Water:**

1. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call (insert phone number of water system).

2. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take following precautions:

a. Let the water run from the tap before using it for drinking or cooking anytime the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15-30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than (insert a cost estimate based on flushing two times a day for 30 days) per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

b. Try not to cook with or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

c. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

d. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and

request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the Division of Public Health about the violation.

e. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the liner or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be maintained in the files of the (insert name of department that issues building permits). A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the line. If the line is only partially controlled by the (insert name of the city, county, or water system that controls the line), we are required to provide you with information on how to replace your portion of the service line, and offer to replace that portion of the line at your expense and take a follow-up tap water sample within 14 days of the replacement. Acceptable replacement alternatives include copper, steel, iron and plastic pipes.

f. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

a. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such reverse osmosis systems or distillers can effectively remove lead from your drinking water. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and

after installing the unit.

b. Purchase bottled water for drinking and cooking.

4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. The Division of Public Health and local government agencies that can be contacted include:

a. (Insert the name of city, county or department of public utilities) at (insert phone number) can provide you with information about your community's water supply, and a list of local laboratories that have been certified by EPA for testing water quality;

b. (Insert the name of city or county department that issues building permits) at (insert phone number) can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

c. The Division of Public Health at (302) 739-5410 or the (insert the name of the city or county health department) at (insert phone number) can provide you with information about the health effects of lead and how you can have your child's blood tested.

5. The following is a list of some Division approved laboratories in your area that you can call to have your water tested for lead. (Insert names and phone numbers of at least two laboratories).

2. Content of Broadcast Materials: A water system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

a. Why should everyone want to know the facts about lead and drinking water? Because an unhealthy amount of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for (insert free or \$ per sample). You can contact the (insert the name of the city or water system) for information on testing and on simple ways to reduce your exposure to lead in drinking water.

1. To have your water tested for lead, or to get more information about this public health concern, please call (insert the phone number of the city or water system).

3. Delivery of a Public Education Program:

a. In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

b. A community water system that fails to meet the lead action level on the basis of tap water samples collected in accordance with Section 22.607(G) shall, within 60 days:

1. Insert notices in each customer's water utility bill containing the information in paragraph (a) of this section, along with the following alert on the water bill itself in large print: "SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION."

2. Submit the information in paragraph (1) of this section to the editorial department of the major daily and weekly newspapers circulated throughout the community.

3. Deliver pamphlets and/or brochures that contain the public education materials in paragraphs (b) and (d) of this section to facilities and organizations, including the following:

a. public schools and/or local school boards;

b. city or county health department;

c. Women, Infants and Children and/or Head Start Program(s) whenever available;

d. public and private hospitals and/or clinics;

e. pediatricians;

f. family planning clinics and;

g. local welfare agencies.

4. Submit the public service announcement in paragraph (2) of this section to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

c. A community water system shall repeat the tasks contained in paragraphs 3(b),(2)and(3) of this section every 12 months, and the tasks contained in paragraphs 3(b)(4) of this section every 6 months for as long as the system exceeds the lead action level.

d. Within 60 days after it exceeds the lead action level, a non-transient non-community water system shall deliver the public education materials contained in paragraphs 1(a),(b) and (d) of this section as follows:

1. post informational posters on lead in drinking water in public places or common areas in each of the buildings served by the system; and

2. distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system.

e. A non-transient non-community water system shall repeat the tasks contained in paragraph 3(d) of this section at least once during each calendar year in which the system exceeds the lead action level,

f. A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to Section 22.607(G). Such a

system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

4. Supplemental Monitoring and Notification of Results: A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with Section 22.607(G) shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

G. Monitoring Requirements for Lead and Copper in Tap Water:

1. Sample Site Location:

a. By the applicable date for commencement of monitoring under paragraph 4(a) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large enough to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (3) of this section. All large systems shall have established targeted sampling sites by January 1, 1992; all medium size systems by July 1, 1992; and all small systems by July 1, 1993. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

b. A water system shall use the information on lead, copper, and galvanized steel that is required to collect under Section 22.714 of these regulations (special monitoring for corrosivity characteristics) when conducting a materials evaluation. When an evaluation of the information collected pursuant to Section 22.714 is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (1) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

1. All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

2. All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

3. All existing water quality

information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

c. The sampling sites selected for a community water system's sampling pool ("tier 1 sampling sites") shall consist of single family structures that:

1. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

2. Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

d. Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

1. Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

2. are served by a lead service line.

e. Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983.

f. The sampling sites selected for a non-transient non-community water system ("tier 1 sampling sites") shall consist of buildings that:

1. contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

2. are served by a lead service line.

g. A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph 1(f) of this section shall complete its sampling pool with tier 2 sampling sites that contain copper pipes with lead solder installed before 1983.

h. Any water system whose sampling pool does not consist exclusively of tier 1 sites shall demonstrate in a letter submitted to the Division under Section 22.607(J)1(b) why a review of the information listed in paragraph 1(b) of this section was inadequate to locate a sufficient number of tier 1 sites. Any community water system which includes tier 3 sampling sites in its sampling pool shall demonstrate in such a letter why it was unable to locate a sufficient number of tier 1 and tier 2 sampling sites. For large systems this shall be completed by January 1, 1992; for medium size systems by July 1, 1992; and for small systems by July 1, 1993.

i. Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of those samples from sites served by a lead

service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall demonstrate in a letter submitted to the Division under Section 22.607(J)1(d) why the system was unable to locate a sufficient number of such sites. Such a water system shall collect lead service line samples from all of the sites identified as being served by such lines.

## 2. Sample Collection Methods:

a. All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under Section 22.607(E)3, shall be first draw samples.

b. Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. First-draw samples from a non-residential building shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results. Acidification of samples may be done up to 14 days after collection.

c. Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

1. At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

2. Tapping directly into the lead service line; or

3. If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

d. A water system shall collect each first-draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.

3. Number of Samples: Water systems shall collect at least one sample during each monitoring period

specified in paragraph (4)(a) of this section from the number of sites listed in the first column below ("standard monitoring"). A system conducting reduced monitoring under paragraph 4(d) of this section may collect one sample from the number of sites specified in the second column below during each monitoring period specified in paragraph 4(d) of this section.

System size (no. people served)	No. of sites (standard monitoring)	No. of sites (reduced monitoring)
>100,000	100	50
10,001-100,000	60	30
3,301 - 10,000	40	20
501 - 3,300	20	10
101 - 500	10	5
<100	5	5

## 4. Timing of Monitoring:

a. Initial Tap Sampling: The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System Size (no. people served)	First six-month monitoring period begins on
>50,000	January 1, 1992
3,301 - 50,000	July 1, 1992
<3,300	July 1, 1993

1. All large systems shall monitor during two consecutive six-month periods.

2. All small and medium-size systems shall monitor during each six-month monitoring period until:

- a. the system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under Section 22.607(B) in which case the system shall continue monitoring in accordance with paragraph 4(b) of this section, or

- b. the system meets the lead or copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph 1(d) of this section.

b. Monitoring after Installation of Corrosion Control and Source Water Treatment:

1. Any large system which installs optimal corrosion control treatment pursuant to Section 22.607(B)(4) Step 4 shall monitor during two consecutive six-month periods by the date specified in Section 22.607(B)(4) Step 5.

2. Any small or medium-size system which installs optimal corrosion control treatment pursuant to Section 22.607(B)(5) Step 5 shall monitor during two consecutive six-month periods by the date specified in Section 22.607(B)(5) Step 6.

3. Any system which installs source water treatment pursuant to Section 22.607(D)1 Step 3 shall monitor during two consecutive six-month periods by the date specified in Section 22.607(D)1 Step 4.

c. Monitoring after Division specifies Water Quality Parameter Values for Optimal Corrosion Control: After the Division specifies the values for water quality control parameters under Section 22.607(C)6, the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the Division specifies the optimal values under Section 22.607(C)6.

d. Reduced Monitoring:

1. A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (3) of this section, and reduce the frequency of sampling to once per year. Division approval is not required.

2. Any water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Division under Section 22.607(C)6 during each of two consecutive six-month monitoring periods may request that the Division allow the system to reduce the frequency of monitoring to once per year and to reduce the number of lead and copper samples in accordance with paragraph (3) of this section. The Division shall review the information submitted by the water system and shall make its decision in writing, setting forth the basis for its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

3. A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the Division under Section 22.607(C)6 during three consecutive years of monitoring may request that the Division allow the system to reduce the frequency of monitoring from annually to once every three years. The Division shall review the information submitted by the water system and shall make its decision in writing, setting forth the basis for its determination. The Division shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

4. A water system that reduces the number and frequency of sampling shall collect these samples from sites included in the pool of targeted sampling sites identified in paragraph (1) of this section. Systems

sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August or September.

5. A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action levels shall resume sampling in accordance with paragraph 4(c) of this section and collect the number of samples specified for standard monitoring under paragraph (3) of this section. Any water system subject to reduced monitoring frequency that fails to operate within the range of values for the water quality control parameters specified by the Division under Section 22.607(C)6 shall resume tap water sampling in accordance with paragraph 4(c) of this section and collect the number of samples specified for standard monitoring under paragraph (3) of this section.

5. Additional Monitoring by Systems: The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the Division in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this section.

H. Monitoring Requirements for Water Quality Parameters: All large water systems and all small and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

1. General Requirements:

a. Sample Collection Methods:

1. Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under Section 22.607(G)1. (NOTE: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under Section 22.5.

2. Samples collected at the entry point(s) to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

b. Number of Samples:

1. Systems shall collect two tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (2) and (5) of this section from the following number of sites:

System Size (no. people served)	No. of sites for water quality parameters
>100,000	25
10,001-100,000	10
3,301 - 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

2. Systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (2) of this section. During each monitoring period specified in paragraphs (3) through (5) of this section, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

2. Initial Sampling: All large water systems shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month monitoring period specified in Section 22.607(G)4(a). All small and medium-size systems shall measure the applicable water quality parameters at the locations specified below during each six-month monitoring period specified in Section 22.607(G)4(a) during which the system exceeds the lead or copper action levels.

a. At taps:

1. pH;
2. Alkalinity;
3. Orthophosphate, when an inhibitor containing a phosphate compound is used;
4. Silica, when an inhibitor containing a silicate compound is used;
5. Calcium;
6. Conductivity; and
7. Water Temperature.

b. At each entry point to the distribution system, all of the applicable parameters listed in paragraph (H) 2 (a).

3. Monitoring after Installation of Corrosion Control: Any large system which installs optimal corrosion control treatment pursuant to Section 22.607(B)4) Step 4 shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in Section 22.607(G)4(b)(1). Any small or medium-size system which installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in Section 22.607(G)4(b)(2) in which the system exceeds the lead or copper action level.

a. At taps two samples for:

1. pH;
2. Alkalinity;
3. Orthophosphate, when an inhibitor containing a phosphate compound is used;
4. Silica, when an inhibitor;

5. Calcium, when calcium carbonate stabilization is used as part of corrosion control.

b. At each entry point to the distribution system, one sample every two weeks (bi-weekly) for:

1. pH;
2. When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and
3. When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

4. Monitoring after Division Specifies Water Quality Parameter Values for Optimal Corrosion Control: After the Division specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under Section 22.607(C)6, all large systems shall measure the applicable water quality parameters in accordance with paragraph (3) of this section during each monitoring period specified in Section 22.607(G)4(c). Any small or medium-size system shall conduct such monitoring during each monitoring period specified in Section 22.607(G)4(c) in which the system exceeds the lead or copper action level. The system may take a confirmation sample for any water quality parameter value no later than 3 days after the first sample. If a confirmation sample is taken, the result must be averaged with the first sampling result and the average must be used for any compliance determination under Section 22.607(C)7. The Division has discretion to delete results of obvious sampling errors from this calculation.

5. Reduced Monitoring:

a. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under paragraph (4) of this section shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph 3(b) of this section. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System Size (no. people served)	Reduced No. of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
<100	1

b. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Division under Section 22.607(C)6 during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in the paragraph 5(a) of this section from every six months to annually.

c. A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

d. Any water system subject to reduced monitoring frequency that fails to operate within the range of values for the water quality parameters specified by the Division under Section 22.607(C)(6) shall resume tap water sampling in accordance with the number and frequency requirements in paragraph (3) of this section.

6. Additional Monitoring by Systems: The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the Division in making any determinations(i.e., determining concentrations of water quality parameters) under this section or Section 22.607(C).

**SUMMARY OF MONITORING REQUIREMENTS FOR WATER QUALITY PARAMETERS**

Monitoring	Parameters	location	frequency
Initial Monitoring	pH, alkalinity, orthophosphate or silica, calcium conductivity temperature	Taps and at entry to the distribution system	Every 6 months
After installation of Corrosion Control	pH, alkalinity, orthophosphate or silica, calcium	Taps	Every 6 months
After Division Specifies Parameter Values for Optimal Corrosion Control	pH, alkalinity, dosage rate and concentration (if alkalinity adjusted as part of corrosion control) inhibitor dosage rate and inhibitor residual	Entry point(s)to the distribution system	Bi-weekly
Reduced Monitoring	pH, alkalinity, orthophosphate or silica, calcium	Taps	Every 6 months at a reduced number of sites
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual	Entry point(s) to the distribution system	Bi-weekly

1. Table is for illustrated purposes; consult the text of this section for precise regulatory requirements.

2. Small and medium-size systems have to monitor for water quality parameters only during monitoring periods in which the systems exceeds the lead or copper level.

3. Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing silicate compound is used.

4. Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

5. Inhibitor dosage rates and inhibitor residual

concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

I. Monitoring Requirements for Lead and Copper in Source Water:

1. Sample Location Collection Methods, and Number of samples:

a. A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with Section 22.607(G) shall collect lead and copper source water samples in accordance with the requirements regarding sample location, number of samples, and collection methods specified in Section 22.602(A)(1) - (4) (inorganic chemical sampling). (NOTE: The timing of sampling for lead and copper shall be in accordance with paragraphs(2) and (3) of this section, and not dates specified in Section 22.602(A)(1) and (2).

b. Where the results of sampling indicate an exceedance of maximum permissible source water levels established under Section 22.607(D)2(d), the Division may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a Division-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the Division-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measure value or be considered one-half the PQL.

2. Monitoring Frequency after System Exceeds Tap Water Action Level: Any system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system within six months after the exceedance.

3. Monitoring Frequency after Installation of Source Water Treatment: Any system which installs source water treatment pursuant to Section 22.607(D)(1) Step 2 shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in Section 22.607(D)(1) Step 4.

4. Monitoring Frequency after Division Specifies Maximum Permissible Source Water Levels or Determines that Source Water Treatment is not Needed:

a. A system shall monitor at the frequency specified below in cases where the Division specifies maximum permissible source water levels under Section 22.607(D)2(d) or determines that the system is not required to install source water treatment under Section 22.607(D)2(d).

1. A water system using only groundwater shall collect samples once during the three-year

compliance period (as that term is defined in Section 22.1) in effect when the applicable Division determination under paragraph 4(a) of this section is made. Such systems shall collect samples once during each subsequent compliance period.

2. A water system using surface water (or a combination of surface and groundwater) shall collect samples once during each year, the first annual monitoring period to begin on the date on which the applicable Division determination is made under paragraph 4(a) of this section.

b. A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph 4(a)(1) or (2) of this section.

5. Reduced Monitoring Frequency:

a. A water system using only groundwater which demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and/or copper concentrations specified by the Division in Section 22.607(D)(1) Step 2 during at least three consecutive compliance periods under paragraph 4(a) of this section may reduce the monitoring frequency for lead and/or copper to once during each nine-year compliance cycle (as that term is defined in Section 22.1). Division approval is not required.

b. A water system using surface water (or a combination of surface and ground waters) which demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the Division in Section 22.607(D)2(d) for at least three consecutive years may reduce the monitoring frequency in paragraph 4(a) of this section to once during each nine-year compliance cycle (as that term is defined in Section 22.1). Division approval is not required.

c. A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the Division in Section 22.607(D)1 Step 5.

J. Reporting Requirements: All water systems shall report all of the following information to the Division in accordance with this section.

1. Reporting Requirements for Tap Water Monitoring for Lead and Copper and for Water Quality Parameter Monitoring:

a. A water system shall report the information specified below for all tap water samples within the first 10 days following the end of each applicable monitoring period specified in Section 22.607 (G),(H) and

(I) (i.e., every six-months, annually, or every 3 years).

1. the results of all tap samples for lead and copper including the location of each site and the criteria under Section 22.206(G)1(c),(d),(e),(f), or (g) under which the site was selected for the system's sampling pool;

2. a certification that each first draw sample collected by the water system is one-liter in volume and, to the best of their knowledge, has stood motionless in the service line, or in the interior plumbing of a sampling site, for at least six hours;

3. where residents collected samples, a certification that each tap sample collected by the residents was taken after the water system informed them of proper sampling procedures specified in 22.607(G)2(b).

4. the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with 22.607(A)1(c);

5. with the exception of initial tap sampling conducted pursuant to Section 22.607(G)4(a) the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why 2 sampling sites have changed;

6. the results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under Section 22.607(H)2-5.

7. the results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under Section 22.607(H)2-5.

b. By the applicable date in Section 22.607(G)4(a) for commencement of monitoring, each community water system which does not complete its targeted sampling pool with tier 1 sampling sites meeting the criteria in Section 22.607(G)1(c) shall send a letter to the Division justifying its selection of tier 2 and/or tier 3 sampling sites under Section 22.607(G)1(d) and/or 1(e).

c. By the applicable date in Section 22.607(G)4(a) for commencement of monitoring, each non-transient, non-community water system which does not complete its sampling pool with tier 1 sampling sites meeting the criteria in Section 22.607(G)1(f) shall send a letter to the Division justifying its selection of sampling sites under Section 22.607(G)1(g).

d. By the applicable date in Section 22.607(G)4(a) for commencement of monitoring, each water system with lead service lines that is not able to locate the number of sites served by such lines required under Section 22.607(G)1(i) shall send a letter to the Division demonstrating why it was unable to locate a sufficient number of such sites based upon the information listed in Section 22.607(G)1(b).

e. Each water system that requests that the Division reduce the number and frequency of sampling shall

provide the information required under Section 22.607(G)4(d).

**2. Source Water Monitoring Reporting Requirements:**

a. A water system shall report the sampling results for all source water samples collected in accordance with Section 22.607(I) within the first 10 days following the end of each source water monitoring periods (i.e., annually, per compliance period, per compliance cycle) specified in Section 22.607(I).

b. With the exception of the first round of source water sampling conducted pursuant to Section 22.607(I)2, the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

**3. Corrosion Control Treatment Reporting Requirements:** By the applicable dates under Section 22.607(B), systems shall report the following information:

a. for systems demonstrating that they have already optimized corrosion control, information required in Section 22.607(C)3(b) or (c).

b. for systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under Section 22.607(C)1.

c. for systems required to evaluate the effectiveness of corrosion control treatments under Section 22.607(C)3, the information required by that paragraph.

d. for systems required to install optimal corrosion control designated by the Division under Section 22.607(C)4, a letter certifying that the system has completed installing that treatment.

**4. Source Water Treatment Reporting Requirements:** By the applicable dates in Section 22.607(D), systems shall provide the following information to the Division:

a. if required under Section 22.607(D)2(a) their recommendation regarding source water treatment;

b. for systems required to install source water treatment under Section 22.607(D)2(b), a letter certifying that the system has completed installing the treatment designated by the Division within 24 months after the Division designated the treatment.

**5. Lead Service Line Replacement Reporting Requirements:** Systems shall report the following information to the Division to demonstrate compliance with the requirements of Section 22.607(E):

a. Within 12 months after a system exceeds the lead action level in sampling referred to in Section 22.607(E)1, the system shall demonstrate in writing to the Division that it has conducted a material evaluation, including the evaluation in Section 22.607(G)1, to identify the initial number of lead service lines in its distribution system, and shall provide the Division with the system's schedule for replacing annually at least 7 percent of the

initial number of lead service lines in its distribution system.

b. Within 12 months after a system exceeds the lead action level in sampling referred to in Section 22.607(E)1, and every 12 months thereafter, the system shall demonstrate to the Division in writing that the system has either:

1. replaced in the previous 12 months at least 7 percent of the initial lead service lines (or a greater number of lines specified by the Division under Section 22.607(E)6 in its distribution system; or

2. conducted sampling which demonstrates that the lead concentration in all service lines samples from an individual line(s), taken pursuant to Section 22.607(G)2(c), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in Section 22.607 (E)2 shall equal at least 7 percent of the initial number of lead lines identified under paragraph (a) of this section (or the percentage specified by the Division under Section 22.607(E)6.

c. The annual letter submitted to the Division under paragraph 5(b) of this section shall contain the following information:

1. the number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

2. the number and location of each lead service line replaced during the previous year of the system's replacement schedule;

3. if measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

d. As soon as practicable, but in no case later than three months after a system exceeds the lead action level in sampling referred to in Section 22.607(E)1, any system seeking to rebut the presumption that it has control over the entire lead service line pursuant to Section 22.607(E)4 shall submit a letter to the Division describing the legal authority (e.g., Division statutes, municipal ordinances, public service contracts or other applicable legal authority) which limits the system's control over the service lines and the extent of the system's control.

**6. Public Education Program Reporting Requirements:** By December 31st of each year, any water system that is subject to the public education requirements in Section 22.607(F) shall submit a letter to the Division demonstrating that the system has delivered the public education materials that meet the content requirements in Section 22.607(F)1 and 2 and the delivery requirements in Section 22.607(F)3. This information shall include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered public education materials during the previous year. The water system shall submit the letter required by this paragraph annually for as long as it exceeds the lead action

level.

7. Reporting of Additional Monitoring Data: Any system which collects sampling data in addition to that required by this section shall report the results to the Division by the end of the applicable monitoring period under Sections 22.607(G), (H) and (I) during which the samples are collected.

K. Recordkeeping Requirements: Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Division determinations, and any other information required by Section 22.607(B) through Section 22.607(I). Each water system shall retain the records required by this section for no fewer than 12 years.

L. Analytical Methodology:

1. Analysis for lead, copper, pH conductivity, calcium, alkalinity, or the phosphate, silica and temperature shall be conducted using the following methods:

a. Lead: Atomic absorption Furnace Technique using Method 239.2, Method D3559-85D or Method 3113; Inductively Coupled Plasma; Mass Spectrometry using Methods 200.8; or Atomic Absorption, Platform Furnace Technique using Method 200.9 .

b. Copper: Atomic Absorption, Furnace Technique using Method 220.2, Method D1688-90C or Method 3113; Atomic Absorption, Direct Aspiration using Method 220.1, Method D1688-90A or Method 3111-B; Inductively Coupled Plasma using Method 200.7 , or Method 3120; Inductively Coupled Plasma, Mass Spectrometry using Method 200.8; or Atomic Absorption, Platform Furnace using Method 200.9

c. pH: Electrometric using Method 150.1, Method 150.2, Method D1293-84B or Method 4500-H.

d. Conductivity: Conductance using Method 120.1, Method D1125-82B or Method 2510.

e. Calcium: EDTA Titrametric using Method 215.2, Method D511-88A or Method 3500-Ca-D; Atomic Absorption, Direct Aspiration using Method 215.1, Method D511-88B or Method 3111-B; or Inductively Coupled Plasma using Method 200.7 or Method 3120.

f. Alkalinity: Titrametric using Method 310.1, Method D1067-88B or Method 2320; or Electrometric Titration using Method I-1030-85.

g. Orthophosphate (Unfiltered No digestion or Hydrolysis): Colorimetric, Automated, Ascorbic Acid using Method 365.1, or Method 4500-P-F; Colorimetric, Ascorbic Acid Two Reagent using Method 365.3, or Method 4500-P-F; Colorimetric, Ascorbic Acid, Single Reagent using Method 365.2, Method D515-88A; Colorimetric Phosphomolybdate using Method I-1601-85; Colorimetric, Automated Segmented Flow using Method I-2601-85; or Colorimetric, Automated Discrete using Method I2598-85; Ion Chromatography using Method 300.0, Method D4327-

88 or Method 4110.

h. Silica: Colorimetric, Molybdate Blue using Method I-1700-85; Colorimetric, Automated Segmented Flow using Method I-2700-85; Colorimetric using Method 370.1, or Method D859-88; Molybdosilicate using Method 4500-Si-D; Heteropoly Blue using Method 4500-Si-E, Automated Method for Molybdate-Reactive Silica using Method 4500-Si-F; or Inductively Coupled Plasma using Method 200.7 , or Method 3120.

i. Temperature: Thermometric using Method 2550.

1. The procedures 239.2, 220.2, 220.1, 150.1, 150.2, 120.1, 215.1, 215.2, 310.1, 365.1, 365.3, 365.2, and 370.1 are incorporated by reference and shall be done in accordance with "Methods for Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH (EPA-600/4-79-020). Revised March 1983, pp. 239.2-1 through 239.2-2 and metals-1 through metals-19, 220.2-1 through 220.2-2 and metals-1 through metals-19, 220.1-1 through 220.1-2 and metals-1 through metals-19, 150.1-1 through 150.1-3, 150.2-1 through 150.2-3, 120.1-1 through 120.1-3, 215.2-1 through 215.2-3, 215.1-1 through 215.1-2, 310.1-1 through 310.1-3, 365.1-1 through 365.1-9, 365.3-1 through 365.3-4, 365.1-1 through 365.2-6 and 370.1-1 through 370.1-5, respectively. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from ORD Publications, CERL, EPA, Cincinnati, OH 45268. Copies may be inspected at the United State Environmental Protection Agency, 401 M. Street, SW., Room EB-15, Washing, D.C. 29460 or at the Office of the Federal Register, 1100 L. Street, NW., Room 8401, Washington, D.C.

2. The procedures D3559-85D, D1688-90C, D1688-90A, D1293-64B, D1125-82B, D511-88, D1067-88B, D515-88A, D4327-88A, and D859-88 are incorporated by reference and shall be done in accordance with Annual Book of ASTM Standards, Vol 11.01, American Society for Testing and Materials, 1990. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 551(a) and 1 CFR Part 51. Copies may be obtained from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103. Copies may be inspected at the United State Environmental Protection Agency, 401 L. Street, SW., Room EB-15, Washington, D.C. 20460 or at the Office of the Federal Register, 1100 L. Street, NW, Room 8401, Washington, D.C.

3. The procedures 3113, 3111-B, 3120, 4500-11, 2510, 3500-Ca-D, 3120, 2320, 4500-P-F, 4500-P-E, 4110, 4500-Si-D, 4500-Si-E, 4500-Si-F, and 2550 are incorporated by reference and shall be done in accordance with "Standard Methods for the Examination of Water and

Wastewater," 17th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1989, pp. 3-43, 3-20 through 3023, 3-53 through 3-63, 4-94 through 4-102, 2-57 through 2-61, 3-85 through 3-87, 2-35 through 2-90, 4-178 through 4-181, 4-117 through 4-178, 4-2 through 4-6, 4-184 through 4-187, 4-188 through 4-189, 4-189 through 4-191, and 2-60 through 2-81, respectively. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from the American Water Works Association, Customer Service, 6666 West Quincy Avenue, Denver, CO 80235, Phone (303) 794-7711. Copies may be inspected at the United States Environmental Protection Agency, 401 M. Street, SW, Room EB-15, Washington, D.C., 20460 or at the Office of the Federal Register, 1100 L. Street, NW, Room 8401, Washington, D.C.

4. The procedures 1-2001-85, 1-1030-05, 1-1601-85, 12588-85, 1-1700-85, and 1-2700-85 are incorporated by reference and shall be done in accordance with "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," 3rd edition, U.S. Department of Interior, U.S. Geological Survey, 1989, pp. 55-56, 381-382, 383-385, 387-388, 415-416, and 417-419, respectively. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. and 1 CFR Part 51. Copies may be purchased from the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225. Copies may be inspected at the United States Environmental Protection Agency, 401 M. Street, SW, Room EB-15, Washington, D.C. 20460 or the Office of the Federal Register, 1100 L. Street, NW, Room 8401, Washington, D.C.

5. "Determination of Metals and Trace Elements in Water and Wastes by Inductively-Coupled Plasma-Mass Spectrometry," Revision 3.2, August 1990, U.S. EPA, EMSL. This document is available from U.S. EPA, EMSL, Cincinnati, OH 45268.

6. "Determination of Trace Elements in Water and Wastes by Inductively-Coupled Plasma-Mass Spectrometry," Method 200.8, August 1990, Revision 4.3, U.S. EPA EMSL. This document is available from U.S. EPA, EMSL, Cincinnati, OH, 45268.

7. "Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption, Spectrometry," Method 200.9, August 1990, U.S. EPA EMSL. This documents is available from U.S. EPA, EMSL, Cincinnati, OH 45268.

8. "Determination of Inorganic Ions in Water by Ion Chromatography," Method 300.0, December 1989, U.S. EPA, EMSL. This document is available from U.S. EPA, EMSL, Cincinnati, OH 45268.

9. For analyzing lead and copper, the technique applicable to total metals must be used and

samples cannot be filtered. Samples containing less than 1 NTU (nephelometric turbidity unit) and that are properly preserved (conc. HNO<sub>3</sub> to pH <2) may be analyzed directly (without digestion) for total metals; otherwise, digestion is required. Turbidity must be measured on the preserved samples just prior to when metal analysis is initiated. When digestion is required, the 'total recoverable' technique as defined in the method must be used.

2. Analyses under this section shall only be conducted by laboratories that have been approved by the EPA or the Division. To obtain certification to conduct analyses for lead and copper, laboratories must:

a. Analyze performance evaluation samples which include lead and copper provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the Division; and

b. Achieve quantitative acceptance limits as follows:

1. Lead: +30 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.005 mg/L; and

2. Copper: +10 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.050 mg/L;

c. Achieve method detection limits according to the procedures listed in Section 22.607(L)(1) are as follows:

1. Lead: 0.001 mg/L (only if source water compositing is done under Section 22.602(A)4(a)); and

2. Copper: 0.001 mg/L or 0.020 mg/L when atomic absorption direct aspiration is used (only if source water compositing is done under Section 22.602(A)4(a)).

d. Be currently certified by EPA or the Division to perform analyses to the specifications described in paragraph (L)2 of this section.

3. The Division has the authority to allow the use of previously collected monitoring data for purposes of monitoring, if the data were collected and analyzed in accordance with the requirements of this Section.

4. All water systems must report lead measurements between the PQL and the MDL as measured or as one-half the PQL (0.0075 mg/l). All levels below the lead MDL must be reported as zero.

5. All water systems must report copper measurements between the PQL and the MDL as measured or as one-half the PQL (0.025 mg/l). All levels below the copper MDL must be reported as zero.

22.61 Organic Chemical Requirements:

22.611 PMCL's: The following are the organic PMCLs (mg/L-milligrams per liter). Compliance is determined pursuant to Sections 22.612, 22.613, and 22.614.

A. The following maximum contaminant levels for synthetic organic contaminants apply to community water systems and not-transient, non-community water systems:

### Pesticides and PCBs

#### Contaminant MCL

Alachlor	0.002 mg/L
Aldicarb	0.003 mg/L
Aldicarb Sulfone	0.002 mg/L
Aldicarb Sulfoxide	0.004 mg/L
Atrazine	0.003 mg/L
Benzo(a)pyrene	0.0002 mg/L
Carbofuran	0.04 mg/L
Chlordane	0.002 mg/L
Dalapon	0.2 mg/L
Di(2-ethylhexyl) adipate	0.4 mg/L
Di(2-ethylhexyl) phthalate	0.006 mg/L
Dibromochloropropane	0.0002 mg/L
Dinoseb	0.007 mg/L
Diquat	0.02 mg/L
2,4-D	0.07 mg/L
Endothall	0.1 mg/L
Endrin	0.002 mg/L
Ethylendibromide (EDB)	0.00005 mg/L
Glyphosate	0.7 mg/L
Heptachlor	0.0004 mg/L
Hepachlor epoxide	0.0002 mg/L
Hexachlorobenzene	0.001 mg/L
Hexachlorocyclopentadiene	0.05 mg/L
Lindane	0.0002 mg/L
Methoxychlor	0.04 mg/L
Oxamyl (Vydate)	0.2 mg/L
Pentachlorophenol	0.001 mg/L
Picloram	0.5 mg/L
Polychlorinated biphenyls (PCBs)	0.0005 mg/L
Simazine	0.004 mg/L
2,3,7,8-TCDD (Dioxin)	3 X 10 <sup>-8</sup> mg/L
Toxaphene	0.003 mg/L
2,4,5-TP (Silvex)	0.05 mg/L

#### B. Total Trihalomethanes (TTHMs) Contaminant MCL

TTHMs	0.10 mg/L
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#### C. Volatile Synthetic Organic Chemicals (VOCs) Contaminant MCL

Benzene	0.005 mg/L
Carbon Tetrachloride	0.005 mg/L
0-Dichlorobenzene	0.6 mg/L
P-Dichlorobenzene	0.075 mg/L
1,2 Dichloroethane	0.005 mg/L
1,1 Dichloroethylene	0.007 mg/L
Cis-1,2-Dichloroethylene	0.07 mg/L
Trans 1,2 Dichloroethylene	0.1 mg/L
Dichloromethane	0.005 mg/L
1,2 Dichloropropane	0.005 mg/L
Ethylbenzene	0.7 mg/L
Monochlorobenzene	0.1 mg/L
Styrene	0.1 mg/L
Tetrachloroethylene	0.005 mg/L

Toluene	1 mg/L
1,2,4-Trichlorobenzene	0.07 mg/L
1,1,1-Trichloroethane	0.2 mg/L
1,1,2-Trichloroethane	0.005 mg/L
Trichloroethylene	0.005 mg/L
Vinyl Chloride	0.002 mg/L
Xylenes (total)	10 mg/L

22.612 Sampling, Analytical Requirements and Compliance Determination For Contaminants Listed in 22.611A : Monitoring of the contaminants listed in Section 22.611A for the purposes of determining compliance with the MCLs shall be conducted as follows:

A. Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

B. Surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant. ( NOTE: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources).

C. If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating condition (i.e., when water representative of all sources is being used).

#### D. Monitoring frequency:

1. Each community and non-transient non-community water system shall take four consecutive quarterly samples for each contaminant listed in Section 22.611A during each compliance period beginning with the compliance period starting January 1, 1993.

2. Systems serving more than 3,300 persons which do not detect a contaminant in the initial compliance period may reduce the sampling frequency to a minimum of two quarterly samples in one year during each repeat compliance period.

3. Systems serving less than or equal to 3,300 persons which do not detect a contaminant in the initial compliance period may reduce the sampling frequency to a minimum of one sample during each repeat compliance period.

E. Each community and non-transient water system which does not detect a contaminant listed in Section 22.611A may apply to the Division for a waiver from the requirement of paragraph (D)(1) of this section upon

completion of the initial monitoring. A system must reapply for a waiver at the end of each compliance period.

F. The Division may grant a waiver after evaluating the following factors: Knowledge of previous use (including transport, storage, or disposal) of the contaminant within the watershed or zone of influence of the system. If a determination by the Division reveals no previous use of the contaminant within the watershed or zone of influence, a waiver may be granted. If previous use of the contaminant is unknown, or it has been used previously, then the following factors shall be used to determine whether a waiver is granted:

1. Previous analytical results.
2. The proximity of the system to a potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facilities or at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities. Non-point sources include the use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land application uses.

3. The environmental persistence and transport of the pesticide or PCBs.

4. How well the water source is protected against contamination due to such factors as depth of the well, the type of soil and the integrity of the well casing.

5. Elevated nitrate levels at the water supply source.

6. Use of PCBs in equipment used in the production, storage or distribution of water (i.e., PCBs used in pumps, transformers, etc).

G. If an organic contaminant listed in Section 22.611 (A) is detected in any sample then:

1. Each system must monitor quarterly at each sampling point which resulted in a detection.

2. The Division may decrease the quarterly monitoring requirement specified in paragraph (1) of this section provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case shall the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system take a minimum of four quarterly samples.

3. After the Division determines the system is reliably and consistently below the maximum contaminant level the Division may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter that previously yielded the highest analytical result.

4. Systems which have 3 consecutive annual samples with no detection of a contaminant may apply to the Division for a waiver as specified in paragraph (F) of this section.

5. If monitoring results in detection of one or

more of certain related contaminants (aldicarb, aldicarb sulfone, aldicarb sulfoxide and heptachlor, heptachlor epoxide), then subsequent monitoring shall analyze for all related contaminants.

H. Systems which violate the MCL listed in Section 22.611A must monitor quarterly. After a minimum of four quarterly samples show the system is in compliance and the Division determines the system to be reliably and consistently below the MCL as specified in paragraph K, the system shall monitor at the frequency specified in paragraph (G)3 of this section.

I. The Division may require a confirmation sample for positive or negative results. If a confirmation sample is required by the Division, the result must be averaged with the first sampling result and the average used for the compliance determination as specified in paragraph K. The Division has the discretion to delete results of obvious sampling errors from this calculation.

J. The Division may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Detection Limit must be less than one-fifth of the MCL. Compositing of samples must be done in the laboratory and analyzed within 14 days of sample collections.

1. If the concentration in the composite sample detects one or more contaminants listed in Section 22.611A, then a follow-up sample must be taken and analyzed within 14 days from each sampling point included in the composite.

2. If duplicates of the original sample taken from each sampling point used in the composite are available, the system may use these duplicates instead of resampling. The duplicate must be analyzed and the results reported to the Division within 14 days of collection.

3. If the population served by the system is >3,300 persons, then compositing may only be permitted by the Division at sampling points within a single system. In systems serving <3,300 persons, the Division may permit compositing among different systems provided the 5-sample limit is maintained.

K. Compliance with Section 22.611 shall be determined based on the analytical results obtained at each sampling point.

1. For systems which are conducting monitoring at a frequency greater than annually, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any samples below the detection limit shall be calculated as zero for purposes of determining the annual average.

2. If monitoring is conducted annually, or less

frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the Division, the determination of compliance will be based on the average of two samples.

3. If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the Division may allow the system to give public notice to only that portion of the system which is out of compliance.

L. Analysis for the contaminants listed in Section 22.611A shall be conducted using the following EPA methods or their equivalent as approved by EPA. These methods are contained in "Methods for the Determination of Organic Compounds in Drinking Water," ORD Publications, CEKI, EPA/600/4-80/039, December 1988. These documents are available from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll free number is 1-800-226-4700.

1. Method 504: "1,2-Dibromoethane (EDB) and 2,2-Dibromo-3chloropropane (DBCP) in Water by Microextraction and Gas Chromatography." Method 504 can be used to measure dibromochloropropane (DBCP) and ethylene dibromide (EDB).

2. Method 505: "Analysis of Organohalide Pesticides and Commercial Polychlorinated Biphenyl Products (Aroclors) in Water by Microextraction and Gas Chromatography." Method 505 can be used to measure alachlor, atrazine, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, toxaphene and simazine. Method 505 can be used as a screen for PCBs.

3. Method 507: "Determination of Nitrogen-and Phosphorus-Containing Pesticides in Ground Water by Gas Chromatography with a Nitrogen-Phosphorus Detector." Method 507 can be used to measure alachlor, atrazine and simazine.

4. Method 508: "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector." Method 508 can be used to measure chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, lindane, methoxychlor and toxaphene. Method 508 can be used as a screen for PCBs.

5. Method 508A: "Screening for Polychlorinated Biphenyls by Perchlorination and Gas Chromatography." Method 508A is used to quantitate PCBs as decachlorobiphenyl if detected in Methods 505 or 508.

6. Method 515.1: "Determination of Chlorinated Acids in Water by Gas Chromatography with an Electron Capture Detector." Method 515.1 can be used to measure 2,4-D, dalapon, dinoseb, pentachlorophenol, picloram and 2,4,5-TP (Silvex).

7. Method 525.1: "Determination of Organic

Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry." Method 525.1 can be used to measure alachlor, atrazine, chlordane, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, pentachlorophenol, polynuclear aromatic hydrocarbons, simazine and toxaphene.

8. Method 531.1: "Measurement of N-Methyl Carbamoyloximes and N-Methyl Carbamates in Water by Direct Aqueous Injection HPLC with Post-Column Derivatization." Method 531.1 can be used to measure aldicarb, aldicarb sulfoxide, aldicarb sulfone, carbofuran and oxamyl.

9. Method 1613: "Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution." Method 1613 can be used to measure 2,3,7,8-TCDD (dioxin). This method is available from USEPA-OST, Sample Control Center, P.O. Box 1407, Alexandria, VA 22313.

10. Method 547: "Analysis of Glyphosate in Drinking Water by Direct Aqueous Injection HPLC with Post-Column Derivatization." Method 547 can be used to measure glyphosate.

11. Method 548: "Determination of Endothall in Aqueous Samples." Method 548 can be used to measure endothall.

12. Method 549: "Determination of Diquat and Paraquat in Drinking Water by High Performance Liquid Chromatography with Ultraviolet Detection." Method 549 can be used to measure diquat.

13. Method 550: "Determination of Polycyclic Aromatic Hydrocarbon in Drinking Water by Liquid-Liquid Extraction and HPLC with Coupled Ultraviolet and Fluorescence Detection." Method 550 can be used to measure benzo(a)pyrene and other polynuclear aromatic hydrocarbons

14. Method 550.1: "Determination of Polycyclic Aromatic Hydrocarbons in Drinking Water by Liquid-Solid Extraction and HPLC with Coupled Ultraviolet and Fluorescence Detection." Method 550.1 can be used to measure benzo(a)pyrene and other polynuclear aromatic hydrocarbons.

M. Analysis for PCBs shall be conducted as follows:

1. Each system which monitors for PCBs shall analyze each sample using either Method 505 or Method 508 (see paragraph (M)(2) of this section).

2. If PCBs (as one of seven Aroclors) are detected (as designated in this paragraph) in any sample analyzed using Methods 505 or 508, the system shall reanalyze the sample using Method 508A to quantitate PCBs (as decachlorobiphenyl).

AROCLOR	DETECTION limit (mg/l)
1016	0.00008
1221	0.02
1232	0.0005
1242	0.0003
1248	0.0001
1254	0.0001
1260	0.0002

3. Compliance with the PCB MCL shall be determined based upon the quantitative results of analyses using Method 508A.

N. If monitoring data collected after January 1, 1990, are generally consistent with the requirements of Section 22.612, then the Division may allow systems to use that data to satisfy the monitoring requirement for the initial compliance period beginning January 1, 1993.

O. The Division may increase the required monitoring frequency, where necessary, to detect variations within the system (e.g., fluctuations in concentration due to seasonal use, changes in water source).

P. The Division has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

Q. Each public water system shall monitor at the time designated by the Division within each compliance period.

R. Detection as used in this paragraph shall be defined as greater than or equal to the following concentrations for each contaminant.

Contaminant	Detection Limit
Alachlor	0.0002
Aldicarb	0.0005
Aldicarb sulfoxide	0.0005
Aldicarb sulfone	0.0008
Atrazine	0.0001
Benzo(a)pyrene	0.00002
Carboforan	0.0009
Chlordane	0.0002
Dalapon	0.001
Dibromochloropropane (DBCP)	0.00002
Di (2-ethylhexyl) adipate	0.0006
Di (2-ethylhexyl) phthalate	0.0006
Dinoseb	0.0002
Diquat	0.0004
2,4-D	0.0001
Endothall	0.009
Endrin	0.00001
Ethylene dibromide (EDB)	0.00001
Glyphosate	0.006
Heptachlor	0.00004
Heptachlor epoxide	0.00002
Hexachlorobenzene	0.0001
Hexachlorocyclopentadiene	0.0001
Lindane	0.00002
Methoxychlor	0.0001
Oxamyl	0.002
Picloram	0.0001
Polychlorinated biphenyls (PCBs) (as decachlorobiphenyl)	0.0001
Pentachlorophenol	0.00004

Simazine	0.00007
Toxaphene	0.001
2,3,7,8-TCDD (Dioxin)	0.000000005
2,4,5-TP (Silvex)	0.0002

S. Analysis under this section shall only be conducted by laboratories that have received certification buy EPA or the Division and have met the following conditions:

1. To receive certification to conduct analyses for the contaminants in Section 22.611A the laboratory must:

a. Analyze Performance Evaluation samples which include those substanacess provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the Division.

b. The laboratory shall achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant	Acceptance Limits (percent)
DBCP	+40
EDB	+40
Alachlor	+45
Atrazine	+45
Benzo(a)pyrene	2 Standard Deviations
Carbofuran	+45
Chlordane	+45
Dalapon	2 Standard Deviations
Di(2-Ethylhexyl)adipate	2 Standard Deviations
Di(2-Ethylhexyl)phthalate	2 Standard Deviations
Dinoseb	2 Standard Deviations
Diquat	2 Standard Deviations
Endothall	2 Standard Deviations
Endrin	+30
Glyphosate	2 Standard Deviations
Heptachlor	+45
Heptachlor epoxide	+45
Hexachlorobenzene	2 Standard Deviations
Hexachlorocyclopentadie ne	2 Standard Deviations
Lindane	+45
Methoxychlor	+45
Oxamyl	2 Standard Deviations
PCBs(as Decachlorobiphenyl)	0 - 200
Picloram	2 Standard Deviations
Simazine	2 Standard Deviations
Toxaphene	+45
Aldicarb	2 Standard Deviations
Aldicarb sulfoxide	2 Standard Deviations
Aldicarb sulfone	2 Standard Deviations
Pentachlorophenol	+50
2,3,7,8-TCDD (Dioxin)	2 Standard Deviations
2,4-D	+50
2,4,5-TP (Silvex)	+50

22.613 Sampling, Analytical Requirements and Compliance Determination for TTHMS: Monitoring of TTHMs for the purpose of determining compliance with the MCL listed in Section 22.611B shall be conducted as follows:

A. Community water systems which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process shall analyze for total trihalomethanes in accordance with this Section. For the

purpose of this Section, the minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the Division's approval, be considered one treatment plant for determining the minimum number of samples. All samples taken within an established frequency shall be collected within a twenty-four (24) hour period.

B. For all community water systems utilizing surface water sources in whole or part, and for all community water systems utilizing only ground water sources that have not been determined by the Division to qualify for the monitoring requirements of paragraphs (E) and (F) of this Section, analyses for total trihalomethanes shall be performed at quarterly intervals on at least four (4) water samples from each treatment plant used by the systems. At least twenty-five (25) percent of the samples shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining seventy-five (75) percent shall be taken at representative locations in the distribution system taking into account number of persons served, different sources of water and different treatment methods employed. The results of all analyses per quarter shall be arithmetically averaged and reported to the division within thirty (30) days of the system's receipt of such results. All samples collected shall be used in the computation of the average, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph H of this Section.

C. The monitoring frequency required by paragraph B of this Section may be reduced by the Division to a minimum of one (1) sample analyzed for TTHMs per quarter taken at a point in the distribution system reflecting the maximum residence time of the water in the system, upon written determination by the Division that the data from at least one (1) year of monitoring in accordance with paragraph B of this Section and local conditions demonstrate that total trihalomethane concentrations will be consistently below the PMCL.

D. If at any time during which the reduced monitoring frequency prescribed under this paragraph applies, the results from any analysis exceed 0.10 mg/L of TTHMs and such results are confirmed by at least one (1) check sample taken promptly after such results are received, or if the system makes any significant change to its source of water or treatment program, the system shall immediately begin monitoring in accordance with the requirements of paragraph B of this Section, which monitoring shall continue for at least one (1) year before the frequency may be reduced again. At the option of the Division, a system's monitoring frequency may and should be increased above the minimum in those cases where it is necessary to detect variations of TTHM levels within the distribution system.

E. The monitoring frequency required by paragraph B of this Section may be reduced by the Division for ground water supplies to a minimum of one (1) sample for maximum TTHM potential per year for each treatment plant used by the system taken at a point in the distribution system reflecting maximum residence time of the water in the system. The system shall submit to the Division the results of at least one (1) sample analyzed for maximum TTHM potential for each treatment plant used by the system taken at a point in the distribution system. The system's monitoring frequency may only be reduced by the Division when, based upon the data, the system has a maximum TTHM potential of less than 0.10 mg/L and when, based upon an assessment of local conditions of the system, the system is not likely to approach or exceed the PMCL for TTHMs. The results of all analyses shall be reported to the Division within thirty (30) days of the system's receipt of such results. All samples collected shall be used for determining whether the system must comply with the monitoring requirements of paragraphs B, C and D of this Section, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph (H) of this Section.

F. If at any time during which the reduced monitoring frequency prescribed under paragraph E of this Section applies, the results from any analyses taken by the system for maximum TTHM potential are equal to or greater than 0.10 mg/L, and such results are confirmed by at least one (1) check sample taken promptly after such results are received, the system shall immediately begin monitoring in accordance with the requirements of paragraphs B, C and D of this Section and such monitoring shall continue for at least one (1) year before the frequency may be reduced again. In the event of any significant change to the system's raw water or treatment program, the system shall immediately analyze an additional sample for maximum TTHM potential taken at a point in the distribution system reflecting maximum residence time of the water in the system for the purpose of determining whether the system must comply with the monitoring requirements of paragraphs B, C and D of this Section. At the option of the Division, monitoring frequencies may and should be increased above the minimum in those cases where this necessary to detect variations of TTHM levels within the distribution system.

G. Compliance with Section 22.611B shall be determined based on running annual average of quarterly samples collected by the system as prescribed in paragraphs B or C of this Section. If the average of samples covering any twelve (12) month period exceeds the PMCL, the supplier of water shall report to the Division pursuant to Section 22.40 and notify the public pursuant to Section 22.41. Monitoring after public notification shall be at a frequency designated by the Division and shall continue until a monitoring schedule as a condition to a variance,

exemption or enforcement action shall become effective.

H. Sampling and analyses pursuant to this Section shall be conducted by one of the following EPA approved methods:

1. "The Analysis of Trihalomethanes in Drinking Waters by the Purge and Trap Method," Method 501.1, EMSL, EPA, Cincinnati, Ohio.

2. "The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction," Method 501.2, EMSL, EPA, Cincinnati, Ohio.

Samples taken pursuant to 1 and 2 above, for TTHMs, shall be dechlorinated upon collection to prevent further production of trihalomethanes, according to the procedures described in the above two methods. Samples for maximum TTHM potential should not be dechlorinated, and should be held for seven (7) days at 25 C or above prior to analysis, according to the procedures described in the above (2) methods.

3. Any alternate analytical technique approved by the Division.

J. Before a community water system makes any significant modifications to its existing treatment process for the purposes of achieving compliance with Section 22.611B, such system must submit and obtain Division approval of a detailed plan setting forth its proposed modification and those safeguards that it will implement to ensure that the bacteriological quality of the drinking water served by such system will not be adversely affected by such modification. Each system shall comply with the provisions set forth in the Division approved plan. At a minimum, a Division approved plan shall require the system modifying its disinfection practice to:

1. Evaluate the water system for sanitary defects and evaluate the source water for biological quality.

2. Evaluate its existing treatment practice and consider improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system.

3. Provide baseline water quality survey data of the distribution system. Such data should include the results from monitoring for coliform and fecal coliform bacteria, fecal streptococci, standard plate counts at 35°C and 20°C, phosphate, ammonia, nitrogen and total organic carbon. Virus studies should be required where source waters are heavily contaminated with sewage effluent.

4. Conduct additional monitoring to assure continued maintenance of optimal biological quality in finished water, for example, when chloramines are introduced as disinfectants or when pre-chlorination is being discontinued. Additional monitoring should also be required by the Division for chlorate, chlorite and chlorine dioxide when chlorine dioxide is used as a disinfectant. Standard plate count analyses should also be required by the division as appropriate before and after any modifications.

5. Demonstrate an active disinfectant residual throughout the distribution system at all times during and after the modification.

22.614 Sampling, Analytical Requirements and Compliance Determination for VOC's: Monitoring of the contaminants listed in Section 22.611C for the purpose of determining compliance with the MCLs shall be conducted as follows:

A. Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). If conditions warrant, the Division may designate additional sampling points within the distribution system or at the consumer's tap which more accurately determine consumer exposure. Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

B. Surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). If conditions warrant, the Division may designate additional sampling points within the distribution system or at the consumer's tap which more accurately determines consumer exposure. Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source, treatment plan, or within the distribution system. NOTE: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground surfaces.

C. If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).

D. Each community and non-transient non-community water system shall take four consecutive quarterly samples for each contaminant listed in Section 22.611C, during each compliance period beginning in the initial compliance period.

E. Groundwater and surface water systems which do not detect one of the contaminants listed in Section 22.611C after conducting the initial round of monitoring required in paragraph D of this Section may take one sample annually.

F. For groundwater and surface water systems, if the initial monitoring for contaminants listed in Section 22.611C as allowed in paragraph R of this section has been completed by December 31, 1992 and the system did not detect any contaminant listed in Section 22.611C then the system shall take one sample annually. After a minimum of three years of annual sampling, the Division may allow groundwater systems which have no previous detection of any

contaminant listed in Section 22.611C to take one sample during each compliance period.

G. Each community and non-transient non-community groundwater system which does not detect a contaminant listed in Section 22.611C may apply to the Division for a waiver from the requirement of paragraph E and F of this Section after completing the initial monitoring. (For the purposes of this section, detection is defined as  $>0.0005$  mg/L). A waiver shall be effective for no more than six years (two compliance periods).

1. The Division may also issue waivers to small systems (those serving  $<3,300$  persons) for the initial round of monitoring for 1,2,4-trichlorobenzene.

H. The Division may grant a waiver after evaluating the following factor(s):

1. Knowledge of previous use (including transport, storage, or disposal) of the contaminant within the watershed or zone of influence of the system. If a determination by the Division reveals no previous use of the contaminant within the watershed or zone of influence, a waiver may be granted.

2. If previous use of the contaminant is unknown or it has been used previously, then the following factors shall be used to determine whether a waiver is granted.

a. Previous analytical results.

b. The proximity of the system to potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities.

c. The environmental persistence and transport of the contaminants.

d. The number of persons served by the public water system and the proximity of a smaller system to a larger system.

e. How well the water source is protected against contamination such as whether it is a surface or groundwater system. Groundwater systems must consider factors such as depth of the well, the type of soil, and well head protection. Surface water systems must consider watershed protection.

I. As a condition of the waiver a system must take one sample at each sampling point during the time the waiver is effective (i.e., one sample during two compliance periods or six years) and update its vulnerability assessment considering the factors listed in paragraph H of this section. Based on this vulnerability assessment the Division must confirm that the system is non-vulnerable. If the Division does not make this reconfirmation within three years of the initial determination, then the waiver is invalidated and the system is required to sample annually as specified in paragraph E of this section.

J. Each community and not-transient non-community

surface water system which does not detect a contaminant listed in Section 22.611C may apply to the Division for a waiver from the requirements of Paragraph F of this Section after completing the initial monitoring. Composite samples from a maximum of five sampling points are allowed, provided that the detection limit of the method used for analysis is less than one-fifth of the MCL. Systems meeting this criterion must be determined by the Division to be non-vulnerable based on a vulnerability assessment during each compliance period. Each system receiving a waiver shall sample at the frequency specified by the Division (if any).

K. If a contaminant listed in Section 22.611C, excluding vinyl chloride, is detected at a level exceeding  $0.0005$  mg/L in any sample then:

1. The system must monitor quarterly at each sampling point which resulted in a detection.

2. The Division may decrease the quarterly monitoring requirement specified in paragraph K(1) of this section provided it has determined that the system is reliably and consistently below the maximum contaminant level. In no case shall the Division make this determination unless a groundwater system takes a minimum of two quarterly samples and a surface water system takes a minimum of four quarterly samples.

3. If the Division determines that the system is reliably and consistently below the MCL, the Division may allow the system to monitor annually. Systems which monitor annually must monitor during the quarter(s) which previously yielded the highest analytical result.

4. Systems which have three consecutive annual samples with no detection of a contaminant may apply to the Division for a waiver as specified in paragraph G of this section.

5. Groundwater systems which have detected one or more of the following two-carbon organic compounds: trichloroethylene, tetrachloroethylene, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1,1-trichloroethane, cis-1,2-dichloroethylene or 1,1-dichloroethylene shall monitor quarterly for vinyl chloride. A vinyl chloride sample shall be taken at each sampling point at which one or more of the two-carbon organic compounds was detected. If the results of the first analysis do not detect vinyl chloride, the Division may reduce the quarterly monitoring frequency of vinyl chloride monitoring to one sample during each compliance period. Surface water systems are required to monitor for vinyl chloride as specified by the Division.

L. Systems which violate the requirements of Section 22.611C as determined by paragraph O of this section must monitor quarterly. After a minimum of four consecutive quarterly samples shows the system is in compliance as specified in paragraph O of this Section, and the Division determines that the system is reliably and consistently below the maximum contaminant level, the system may monitor at the frequency and time specified in paragraph K (3) of this

section.

M. The Division may require a confirmation sample for positive or negative results. If a confirmation sample is required by the Division, the result must be averaged with the first sampling result and the average is used for the compliance determination as specified by Paragraph O of this Section. The Division has the discretion to delete results of obvious sampling errors from this calculation.

N. The Division may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed, providing that the detection limit of the method used for analysis is less than one-fifth of the MCL. Compositing of samples must be done in the laboratory and analyzed within 14 days of sample collection.

1. If the concentration in the composite sample is  $>0.0005$  mg/L for any contaminant listed in Section 22.611C, then a follow-up sample must be taken and analyzed within 14 days from each sampling point included in the composite.

2. If duplicates of the original sample taken from each sampling point used in the composite are available, the system may use these instead of resampling. The duplicate must be analyzed and the results reported to the Division within 14 days of collection.

3. If the population served by the system is  $>3,300$  persons, then compositing may only be permitted by the Division at sampling points within a single system. In systems serving  $<3,300$  persons, the Division may permit compositing among different systems provided the 5-sample limit is maintained.

4. Compositing samples prior to GC analysis:

a. Add 5 ml or equal larger amounts of each sample (up to 5 samples are allowed) to a 25 ml glass syringe. Special precautions must be made to maintain zero headspace in the syringe.

b. The samples must be cooled at 4o C during this step to minimize volatilization losses.

c. Mix well and draw out a 5-ml aliquot for analysis.

d. Follow sample introduction, purging and desorption steps described in the method.

e. If less than five samples are used for compositing, a proportionately small syringe may be used.

5. Compositing samples prior to GC/MS analysis:

a. Inject 5-ml or equal larger amounts of each aqueous sample (up to 5 samples are allowed) into a 25-ml purging device using the sample introduction technique described in the method.

b. The total volume of the sample in the purging device must be 25 ml.

c. Purge and desorb as described in the method.

O. Compliance with Section 22.611C shall be

determined based on the analytical results obtained at each sampling point:

1. For systems which are conducting monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. Any samples below the detection limit shall be calculated as zero for purposes of determining the annual average.

2. If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the Division, the determination of compliance will be based on the average of two samples.

3. If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, the Division may allow the system to give public notice to only that area served by that portion of the system which is out of compliance.

P. Analysis for the contaminants listed in Section 22.611C shall be conducted using the following EPA methods or their equivalent as approved by EPA. These methods are contained in "Methods for the Determination of Organic Compounds in Drinking Water," ORD Publications, CERL, EPA/600/4-88/039. These documents are available from the National Technical Information Service (NTIS) NTIS PB91-231480 and PB91-146027, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 1-800-336-4700.

1. Method 502.1: "Volatile Halogenated Organic Chemicals in Water by Purge and Trap Gas Chromatography."

2. Method 502.2: "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series."

3. Method 503.1: "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography."

4. Method 524.1: "Measurement of Purgeable Organic Compounds in Water by Purged Column Gas Chromatography/Mass Spectrometry."

5. Method 524.2: "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry."

Q. Analysis under this section shall only be conducted by laboratories that have received approval by EPA or the Division according to the following conditions:

1. To receive conditional approval to conduct analyses for the contaminants in Section 22.611 C, excluding

vinyl chloride, the laboratory must:

a. Analyze Performance Evaluation samples which include these substances provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the Division.

b. Achieve the quantitative acceptance limits for at least 80 percent of the regulated organic chemicals listed in Section 22.611 C.

c. Achieve quantitative results on the analyses performed under paragraph (P) of this section that are within +20 percent of the actual amount of the substances in the Performance Evaluation sample when the actual amount is greater than or equal to 0.010 mg/L.

d. Achieve quantitative results on the analyses performed under paragraph (P) of this section that are within +40 percent of the actual amount of the substance in the Performance Evaluation sample when the actual amount is less than 0.010 mg/L.

e. Achieve a method detection limit of 0.0005 mg/L according to the procedures listed in Appendix B of 40 CFR Part 136.

(1). {Reserved}.

2. To receive certification for vinyl chloride, the laboratory must:

a. Analyze Performance Evaluation samples provided by the EPA Environmental Monitoring Systems or equivalent samples provided by the State.

b. Achieve quantitative results on the analyses performed under paragraph (2) (a) of this Section that are within +40 percent of the actual amount of vinyl chloride in the Performance Evaluation sample.

c. Achieve a method detection limit of 0.0005 mg/l, according to the procedures listed in Appendix B of 40 CFR Part 136.

d. Obtain certification for the contaminants listed in Section 22.611 (C).

3. Laboratories may conduct sample analysis under provisional certification until January 1, 1996.

R. The Division may allow the use of monitoring data collected after January 1, 1988 for purposes of initial monitoring compliance. If the data are generally consistent with the other requirements in this section, the Division may use those data (i.e., a single sample rather than four quarterly samples) to satisfy the initial monitoring requirement of paragraph D of this section.

1. Systems which use grandfathered samples and did not detect any contaminant listed in Section 22.611 (C), excluding vinyl chloride, shall begin monitoring annually in accordance with paragraph (F) of this Section beginning with the initial compliance period.

S. The Division may increase required monitoring where necessary to detect variations within the system.

T. Each approved laboratory must determine the method detection limit (MDL), as defined in Appendix B of

40 CFR Part 136, at which it is capable of detecting VOCs. The acceptable MDL is 0.0005 mg/L. This concentration is the detection concentration for purposes of this section.

U. Each public water system shall monitor at the time designated by the Division within each compliance period.

#### 22.62 Unregulated Contaminants

22.621 Sampling and Analytical Methodology For Unregulated Volatile Organic Contaminants: Monitoring of the contaminants listed in Paragraph E of this Section shall be conducted as follows:

A. All CWSs and NTNCWSs shall monitor for the contaminants listed in paragraph E of this Section by the Date Specified in the table below:

System Population	Begin No Later Than
Greater than 10,000	First Calendar Quarter of 1989
3,300 - 10,000	First Calendar Quarter of 1989
Less than 3,300	First Calendar Quarter of 1991

B. Surface water systems shall sample in the distribution system representative of each water source or at entry points to the distribution system. The minimum number of samples in one (1) year of quarterly samples per water source.

C. Ground water systems shall sample at points of entry to the distribution system representative of each well. The minimum number of samples in one (1) sample per entry point to the distribution system.

D. The Division may require confirmation samples for positive or negative results.

E. CWSs and NTNCWSs shall monitor for the following contaminants:

Bromobenzene	Dibromomethane
Bromodichloromethane	m-Dichlorobenzene
Bromoform	1,1-Dichloroethane
Bromomethane	1,1-Dichloropropene
Chlorobenzene	1,3-Dichloropropene
Chlorodibromomethane	1,3-Dichloropropane
Chloroethane	2,2-Dichloropropane
Chloroform	1,1,1,2-Tetrachloroethane
Chloromethane	1,1,2,2-Tetrachloroethane
o-chlorotoluene	1,2,3-Trichloropropane
p-chlorotoluene	

F. {Reserved}

G. Analysis for the contaminants listed in Section 22.621 E and J shall be conducted using the following EPA methods or their equivalent as approved by EPA. These methods are contained in "Methods for the Determination of Organic Compounds in Drinking Water," ORD Publications, CERL, EPA/600/4-88/039, December 1988. These documents are available from the National Technical Information Service (NTIS), U.S. Department of Commerce,

5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 1-800-336-4700.

1. Method 502.1: "Volatile Halogenated Organic Chemicals in Water by Purge and Trap Gas Chromatography."

2. Method 502.2: "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and electrolytic Conductivity Detectors in Series."

3. Method 503.1: "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography."

4. Method 524.1: "Volatile Organic Compounds in Water by Purge and Trap Gas Chromatography/Mass Spectrometry."

5. Method 524.2: "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography/Mass Spectrometry."

H. Any alternate analytical technique approved by the United States Environmental Protection Agency.

I. Analyses for contaminants listed in 22.621 E may be conducted only by laboratories approved under Section 22.614 Q.

J. Monitoring for the following compounds is required at the discretion of the Division:

Bromochloromethane	n-Propylbenzene
n-Butylbenzene	Secbutylbenzene
Dichlorodifluoromethane	Tertbutylbenzene
Fluorotrichloromethane	1,2,3-Trichlorobenzene
Hexachlorobutadiene	1,2,4-Trichlorobenzene
Isopropylbenzene	1,2,4-Trimethylbenzene
p-Isopropyltoluene	1,3,5-Trimethylbenzene
Naphthalene	

22.622 Sampling and Analytical Methodology For Unregulated Synthetic and Inorganic Contaminants: Monitoring of the contaminants listed in Paragraphs (K) and (L) of this section shall be conducted as follows:

A. Each community (CWS) and non-transient, non-community (NTNCWS) water system shall take four consecutive quarterly samples at each sampling point for each contaminant listed in paragraph (K) of this section and report the results to the Division. Monitoring must be completed by December 31, 1995.

B. Each CWS and NTNCWS shall take one sample at each sampling point for each contaminant listed in paragraph (L) of this section and report the results to the Division. Monitoring must be completed by December 31, 1995.

C. Each CWS and NTNCWS may apply to the Division for a waiver from the requirements of paragraphs (A) and (B) of this section.

D. The Division may grant a waiver for the requirement of paragraph (A) of this section based on the

criteria specified in Section 22.614 paragraph (H). The Division may grant a waiver from the requirement of paragraph (B) of this section if previous analytical results indicate contamination would not occur, provided this data was collected after January 1, 1990.

E. Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

F. Surface water systems shall take a minimum of one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each sample must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

NOTE: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

G. If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).

H. The Division may require a confirmation sample for positive or negative results.

I. The Division may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory and the composite sample must be analyzed within 14 days of collection. If the population served by the system is >3,300 persons, then compositing may only be permitted by the Division at sampling points within a single system. In systems serving <3,300 persons, the Division may permit compositing among different systems provided the 5-sample limit is maintained.

J. Instead of performing the monitoring required by this section, a CWS or NTNCWS serving fewer than 150 service connections may send a letter to the Division stating that the system is available for sampling. This letter must be sent to the Division by January 1, 1994. The system shall not send such sample to the Division, unless requested to do so by the Division.

K. List of Unregulated Synthetic Organic Contaminants:

Organic Contaminants	EPA Analytical Methods
Aldrin	505, 508, 525
Butachlor	507, 525
Carbaryl	531.1

Dicamba	515.1
Dieldrin	505, 508, 525
3-Hydroxycarbofuran	531.1
Methomyl	531.1
Metolachlor	507, 525
Metribuzin	507, 508, 525
Propachlo	507, 525

L. List of Unregulated Inorganic Contaminants:

Contaminant	EPA analytical method
(i) Sulfate	Colorimetric.

M. Any alternate analytical technique approved by the United States Environmental Protection Agency.

22.63 Best Available Technologies (BAT)

A. The Division hereby identifies as indicated in the table below either granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX) through chlorination or ozonation as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for organic contaminants identified in Section 22.611 paragraphs (A) and (C).

BAT for Organic Contaminants Listed in Section 22.611 (A) and (C)

Chemical	gac	pta	ox
Alachlor		X	
Aldicarb		X	
Aldicarb sulfone		X	
Aldicarb sulfoxide		X	
Atrazine		X	
Benzene		X	X
Benzo(a)pyrene	X		
Carbofuran		X	
Carbon tetrachloride		X	X
Chlordane		X	
2,4-D	X		
Dalapone	X		
Dibromochloropropane (DBCP)		X	X
o-Dichlorobenzene	X	X	
1,2-Dichloroethane	X	X	
cis-1,2-Dichloroethylene	X	X	
trans-1,2-Dichloroethylene	X	X	
1,1-Dichloroethylene	X	X	
Dichloromethane		X	
1,2-Dichloropropane	X	X	
Di(2-ethylhexyl)adipate	X	X	

Di(2-ethylhexyl)phthalate	X		
Dinoseb	X		
Diquat	X		
Endothall	X		
Endrin	X		
Ethylene Dibromide (EDB)		X	X
Ethylbenzene		X	X
Glyphosate			X
Heptachlor		X	
Heptachlor epoxide		X	
Hexachlorobenzene	X		

BAT for Organic Contaminants Listed in Section 22.611 (A) and (C) (Cont.)

Chemical	gac	pta	ox
Hexachlorocyclopentadiene	X	X	
Lindane		X	
Methoxychlor		X	
Monochlorobenzene		X	X
Oxamyl (Vydate)	X		
para-Dichlorobenzene	X		
Polychlorinated biphenyls (PCB)		X	
Pentachlorophenol		X	
Picloram		X	
Simazine	X		
Styrene	X		
2,4,5-TP (Silvex)		X	X
Tetrachloroethylene		X	X
1,2,4-Trichlorobenzene	X	X	
1,1,1-Trichloroethane	X	X	
1,1,2-Trichloroethane	X	X	
Trichloroethylene		X	X
Toluene		X	
Toxaphene		X	X
2,3,7,8-TCDD (Dioxin)	X		
Vinyl chloride		X	
Xylene		X	X

B. BAT for Inorganic Contaminants Listed in Section 22.601 (A)

Chemical Name	BAT(s)
Antimony	2,7
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7

Chromium	2,5,6,2,7
Cyanide	5,7,10
Mercury	21,4,61,71
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2,3,6,7,9
Thallium	1,5

- 1 BAT only if influent Hg concentrations <10 ug/l
- 2 BAT for Chromium III only.
- 3 BAT for Selenium IV only.

**Key to BATs in Table**

- 1 = Activated Alumina
- 2 = Coagulation/Filtration
- 3 = Direct and Diatomite Filtration
- 4 = Granular Activated Carbon
- 5 = Ion Exchange
- 6 = Lime Softening
- 7 = Reverse Osmosis
- 8 = Corrosion Control
- 9 = Electrodialysis
- 10 = Chlorine
- 11 = Ultraviolet

**C. Treatment techniques for acrylamide and epichlorohydrin.**

1. Each public water system must certify annually in writing to the Division (using a third party or manufacturer's certification) that when acrylamide and epichlorohydrin are used in drinking water systems, the combination (or product) of dose and monomer level does not exceed the levels specified as follows:

- Acrylamide = 0.05% dosed at 1 PPM (or equivalent).
- Epichlorohydrin = 0.01 % dosed at 20 PPM (or equivalent).

**22.64 Maximum Contaminant Level (MCL) Effective Dates:**

- Fluoride - October 2, 1987
- Phase I (VOCs) - January 9, 1989
- Phase II - July 30, 1992
- Phase IIB - January 1, 1993
- Phase V - January 17, 1994

**SECTION 22.7 TURBIDITY AND CORROSIVITY**

**22.70 Turbidity MCL, Sampling and Analytical Methodology (Effective no later than June 29, 1993)**

22.701 Turbidity MCL: The PMCLs for turbidity are applicable to both CWSs and NCWSs utilizing surface water sources in whole or in part. The PMCLs for turbidity in drinking water, measured at a representative entry point(s) to the distribution system are:

A. One (1) NTU, as determined by a monthly average pursuant to Section 22.702, except that five (5) or fewer NTUs may be allowed if the supplier of water can demonstrate to the Division that the higher turbidity does not do any of the following:

1. Interfere with disinfection;
2. Prevent maintenance of an effective disinfectant agent throughout the distribution system or;
3. Interfere with microbiological determinations.

B. Five (5) NTUs based on an average for two (2) consecutive days pursuant to Section 22.702.

**22.702 Turbidity Sampling and Analytical Methodology:**

A. Samples shall be taken by suppliers of water for both CWSs and NCWSs using surface water in whole or in part at a representative entry point(s) to the water distribution system at least once per day, for the purpose of making turbidity measurements to determine compliance with Section 22.701. The turbidity measurements shall be made by Method 214A (Nephelometric Method-Nephelometric Turbidity Units), pp. 134-136, as set forth in Standard Methods for the Examination of Water and Wastewater, 1986, American Public Health Association et al., 16th edition, or any alternate analytical technique approved by the Division.

B. If the result of a turbidity analysis indicates that the MCL has been exceeded, the sampling and measurement shall be confirmed by resampling as soon as practicable and preferably within one (1) hour. If the repeat sample confirms that the MCL has been exceeded, the supplier of water shall report to the Division within forty-eight (48) hours. The repeat sample shall be the sample used for the purpose of calculating the monthly average. If the monthly average of the daily samples exceeds the MCL, or if the average of two (2) samples taken on consecutive days exceeds five (5) NTU, the supplier of water shall report to the Division and notify the public as directed in Section 22.40 and Section 22.41.

C. When required by the Division, samples shall be taken by suppliers of water for both CWSs and NCWSs utilizing ground water only, at representative points in the distribution system.

22.71 Corrosivity Sampling, Reporting and Analytical Methodology: Suppliers of water for community public water systems shall collect samples from a representative entry point to the water distribution system for the purpose of analyses to determine the corrosivity characteristics of the water.

22.711 Sampling Requirements: For water suppliers utilizing surface water wholly or in part, two (2) samples per plant are required, one (1) during mid-winter and one (1) during mid-summer. For water suppliers utilizing wholly

ground water sources, one (1) sample per plant per year shall be required.

A. The minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may be considered one (1) treatment plant for determining the minimum number of samples.

B. Determination of the corrosivity characteristics of the water shall include measurement of pH, calcium hardness, alkalinity, temperature, total dissolved solids (total filterable residue) and the calculation of the Langelier Index (LI) in accordance with Section 22.713A. The determination of corrosivity characteristics shall only include one (1) round of sampling (two (2) samples per plant for surface water and one sample per plant for ground water sources). However, the Division may require addition or more frequent monitoring as appropriate. In addition, the Division has the discretion to require monitoring for additional parameters which may indicate corrosivity characteristics such as sulfates and chlorides. In certain cases, the Aggressive Index (AI) as described in Section 22.713B can be used instead of the LI. The Division will make this determination. Waters exhibiting a LI of less than -2.0 or an AI of less than 10.0 shall be considered highly corrosive/aggressive.

22.712 Reporting to the Division: The supplier of water shall report to the Division the results of the analyses for corrosivity characteristics pursuant to Section 22.401.

22.713 Analytical Methodology: Analyses conducted to determine the corrosivity of the water shall be made in accordance with the following methods:

A. Langelier Index -- "Standard Methods for the Examination of Water and Wastewater," 14th Edition, Method 203, pp. 61-63.

B. Aggressive Index -- "AWWA Standard for Asbestos-Cement Pipe, 4 in. through 24 in. for Water Other Liquids," AWWA C400-77, Revision of C400-75, AWWA, Denver, Colorado.

C. Total Filterable Residue -- "Standard Methods for the Examination of Water and Wastewater," 14th Edition, Method 208B, pp. 92-92; or "Methods of Chemical Analysis of Water and Wastes," Method 160.1.

D. Temperature -- "Standard Methods for the Examination of Water and Wastewater," 14th Edition, Method 212, pp 125-126.

E. Calcium -- EDTA Titrimetric Method "Standard Methods for the Examination of Water and Wastewater," 14th Edition, Method 306C, pp. 189-191; or "Annual Book of ASTM Standards," Method D-1126-67B; "Methods for Chemical Analysis of Water and Wastes," Method 215.2.

F. Alkalinity -- Methyl Orange end point pH 4.5 "Standard Methods for the Examination of Water and

Wastewater," 14th Edition, Method 403, pp. 278-281; or "Annual Book of ASTM Standards," Method D1067-70B; or Methods for Chemical Analysis of Water and Wastes," Method 310.1.

G. pH -- "Standard Methods for the Examination of Water and Wastewater," 14th Edition, Method 424, pp. 460-465; or "Methods for Chemical Analysis of Water and Wastes," Method 150.1; or "Annual Book of ASTM Standards," Method D-1293-78A or B.

H. Chloride -- Potentiometric Method, "Standard Methods for the Examination of Water and Wastewater," 14th Edition, p.306.

I. Sulfate -- Turbidimetric Method, "Methods for Chemical Analysis of Water and Wastes," pp. 277-278, EPA, Office of Technology Transfer, Washington, D.C. 20460, 1974, or "Standard Methods for the Examination of Water and Wastewater," 14th Edition, pp. 496-498.

J. Any alternate analytical technique approved by the Division.

22.714 Reporting of Construction Materials: PWSs shall identify whether the following construction materials are present in their distribution system and report to the Division:

A. Lead from piping, solder, caulking, interior lining of distribution mains, alloys and home plumbing.

B. Copper from piping and alloys, service lines and home plumbing.

C. Galvanized piping, service lines and home plumbing.

D. Ferrous piping materials such as cast iron and steel.

E. Asbestos cement pipe.

F. Vinyl lined asbestos cement pipe.

G. Coal tar lined pipes and tanks.

H. In addition, the Division may require identification and reporting of other materials of construction present in distribution systems that may contribute contaminants to the drinking water.

## SECTION 22.8 PUBLIC WATER SYSTEM CLASSIFICATION AND TREATMENT REQUIREMENTS

### 22.801 ~~Water System Classification:~~ Regulatory Classification:

A. Class I - All public water systems shall:

1. Meet all bacteriological requirements;
2. Meet the nitrate and nitrite requirements and;
3. Conform with provisions of Section 22.5.

B. Class II - All public water systems as defined in 22.157(A) and (B) shall: ~~which are not community water systems that regularly serve at least twenty five (25) of the same people over six (6) months per year shall:~~

1. Meet all the Class I requirements and;
2. Meet all ~~Synthetic Organic~~ requirements

~~and other Primary Standards and;~~

3. Meet all requirements of Section 22.607.

C. Class III - All public water systems as defined in 22.157 (A) ~~and serve more than 500 service connections within the state shall; which serve fifteen (15) or more service connections used by year-round residents or regularly serve twenty-five (25) or more year-round residents shall:~~

1. Meet all Class I requirements and;
2. Meet all Class II requirements and;
3. Meet all other primary and secondary standards

requirements.

NOTE - All public water systems should meet all secondary MCLs.

22.802 Disinfection: When it is specifically required by these regulations, or when it is deemed to be required to ensure compliance with Section 22.304 or where it is demonstrated through bacteriological testing that there is a need for disinfection, continuous disinfection shall be provided. The disinfection shall be chlorine, unless a substitute is approved prior to installation. Plans and specifications for the disinfection system shall be approved in accordance with Section 22.211. When the disinfection is instituted, it shall be operated such that a free chlorine residual of at least 0.3 mg/L is maintained throughout the water distribution system. The supplier of water shall keep accurate records of the amount of chlorine used and shall have an approved test kit for measuring both free and total chlorine residuals. The supplier of water shall be required to conduct chlorine residual testing at least daily, and shall report these results to the Division on a monthly basis in accordance with Section 22.401. If a substitute disinfectant is approved, the operational and monitoring requirements shall be specified by the Division.

## SECTION 22.9 RADIOACTIVITY

### 22.91 Limits

22.911 Primary MCLs for Radium 226, 228 and Gross Alpha Particles:

A. The PMCL for radium 226 and 228 combined is five (5) pCi per liter.

B. The PMCL for gross particle activity (including radium 226 but excluding radon and uranium) is fifteen (15) pCi per liter.

22.912 Beta Particle and Photon Concentration Limits: The average annual concentration of beta particle and photon radioactivity for man-made radionuclides in drinking water shall not produce an annual dose equivalent to the total body or any internal organ greater than four (4) millirems per year. Except for those listed in the Table below, the concentration causing four (4) millirems total body or organ dose equivalents shall be calculated on the basis of a two (2) liters

per day drinking water intake using the 168 hour data listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure," NBS Handbook 69 as amended August 1963, U.S. Department of Commerce. If two (2) or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed four (4) millirems per year.

Average Annual Concentrations Assumed to Produce a Total Body or Organ dose of 4 Millirems/Year

Radionuclide	Critical Organ	pCi/L
Tritium	Total Body	20,000
Strontium	Bone Marrow	8

### 22.92 Sampling-Monitoring Frequency:

22.921 Monitoring Frequency: Compliance with Section 22.911 shall be based on the analyses of an annual composite of four (4) consecutive quarterly samples or the average of the analyses of four samples obtained at quarterly intervals. At the discretion of the Division, when an annual record taken in accordance with Section 22.911 has established that the average annual concentration is less than one (1) half of the PMCL under 22.911, analyses of a single sample may be substituted for the quarterly sampling procedure specified herein. A gross alpha particle activity measurement may be substituted for the required radium 226 and 228 analysis provided that the measured gross alpha particle activity does not exceed five (5) pCi/liter. If this limit is exceeded, the same or an equivalent sample shall be analyzed for radium 226. If the concentration of radium 226 exceeds three (3) pCi/L, the same or an equivalent sample shall be analyzed for radium 228. The water supply shall be monitored at least once every four (4) years. More frequent monitoring may be required by the Division if it is deemed necessary. A CWS using two (2) or more sources, having different concentrations or radioactivity, shall monitor source water, in addition to water from a free flowing tap, when ordered by the Division. If the average annual PMCL for gross alpha particle activity or total radium as set forth in Section 22.911 is exceeded, the supplier shall give notice to the Division pursuant to Section 22.40 and notify the public as required by Section 22.41. Monitoring at quarterly intervals shall be continued until the annual average concentration no longer exceeds the PMCL or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

22.922 Surface Water Systems Serving a Population Greater than 100,000: Surface water systems serving a population greater than 100,000 and such other CWSs are designated by the Division shall be monitored for

compliance with Section 22.912 by analyses of four (4) consecutive quarterly samples or analyses of a composite of four (4) consecutive quarterly samples. Compliance with Section 22.912 may be assumed without further analysis if the average annual concentration of gross beta particle activity is less than fifty (50) pCi/liter and if the average annual concentrations of tritium and strontium-90 are less than those listed in the table shown above, provided that if both radionuclides are present, the sum of their annual dose equivalents to bone marrow shall not exceed four (4) millirem/year. If the gross beta particle activity exceeds fifty (50) pCi/liter, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ and total body doses shall be calculated to determine compliance with Section 22.912. Supplies shall be monitored at least once every four (4) years and more often if deemed necessary by the Division.

22.923 Utilizing Water Contaminated By Effluents from Nuclear Facilities: Any CWS designated by the Division as utilizing waters contaminated by effluents from nuclear facilities shall initiate quarterly monitoring for gross beta particles and iodine-131 radioactivity and annual monitoring for strontium-90 and tritium. Quarterly monitoring for gross beta particle activity shall be based on the analyses of monthly samples. If the gross beta particle activity in a sample exceeds fifteen (15) pCi/liter, the same or an equivalent sample shall be analyzed for Sr-89 and Cs-134. If the gross beta particle activity exceeds fifty (50) pCi/liter, an analysis of the sample must be performed to identify the major radioactive constituents present and the appropriate organ or total body doses shall be calculated to determine compliance with Section 22.912. For I-131, a composite of five (5) consecutive daily samples shall be analyzed for each quarter. As ordered by the Division, more frequent monitoring shall be conducted when iodine-131 is identified in the finished water. Annual monitoring for strontium-90 and tritium shall be conducted by means of analyses of a composite of four (4) consecutive quarterly samples. If the average annual PMCL for man-made radioactivity set forth in Section 22.912 is exceeded, the operator of the CWS shall give notice to the Division pursuant to Section 22.40 and to the public as required by Section 22.41. Monitoring at monthly intervals shall be continued until the concentration no longer exceeds the PMCL or until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

22.924 Analytical Methodology:

A. The methods specified in Interim Radiochemical Methodology for Drinking Water, Environmental Monitoring and Support Laboratory, EPA-600/4-75-008, U.S. EPA, Cincinnati, Ohio 45268, or those listed below are to be used to determine compliance with Section 22.911 and

22.912:

1. Gross Alpha and Beta - Method 302 "Gross Alpha and Beta Radioactivity in Water," Standard Methods for the Examination of Water and Wastewater, 13th Edition, American Public Health Association, New York, NY, 1971.
2. Total Radium - Method 304 "Radium in Water by Precipitation" Ibid.
3. Radium-226 - Method 305 "Radium-226 by Radon in Water," Ibid.
4. Strontium-89, 90 - Method 303 "Total Strontium and Strontium-90 in Water," Ibid.
5. Tritium - Method 306 "Tritium in Water," Ibid.
6. Cesium-134 - ASTM D-2459 "Gamma Spectrometry in Water," 1975 Annual Book of ASTM Standards, Water and Atmospheric Analysis, Part 31, American Society for Testing and Materials, Philadelphia, PA, 1975.
7. Uranium - ASTM D-2907 "Microquantities of Uranium in Water by Fluorometry," Ibid.

B. When the identification and measurement of radionuclides other than those listed in paragraph A are required, the following references are to be used:

1. Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solution, H.L. Krieger and S. Gold, EPA-R4-73-074. U.S. EPA, Cincinnati, Ohio, May 1973.
2. HASL Procedure Manual, Edited by John H. Harley. HASL 300 ERDA health and Safety Laboratory, New York, NY, 1973.

C. For the purpose of monitoring radioactivity concentrations in drinking water, the required sensitivity of the radioanalyses is defined in terms of a detection limit. The detection limit shall be that concentration which can be counted with a precision of plus or minus one hundred (100) percent at the ninety-five (95) percent confidence level ( $1.96 \cdot \sigma$  - where  $\sigma$  is the standard deviation of the net counting rate of the sample).

1. To determine compliance with Section 22.911A, the detection limit shall not exceed one (1) pCi/L. To determine compliance with Section 22.911B, the detection limit shall not exceed three (3) pCi/L.

2. To determine compliance with Section 22.912, the detection limits shall not exceed the concentrations listed in the Table below.

Detection Limits for Man-Made Beta Particle and Photon Emitters:

Radionuclide	Detection Limit
Tritium	1,000 pCi/L
Strontium-89	10p Ci/L
Strontium-90	2 pCi/L
Iodine-131	1 pCi/L
Cesium-134	10 pCi/L
Gross Beta	4 pCi/L
Other radionuclides	1/10 of the applicable limit

D. To judge compliance with the PMCLs listed in Sections 22.911 and 22.912, the averages of data shall be used and shall be rounded to the same number of significant figures as the PMCL for the substance in question.

E. Any other alternate analytical technique approved by the Division may also be used.

**SECTION 22.10 SURFACE WATER TREATMENT RULE**

22.1001 **Untreated Water:** The use of untreated (without filtration and disinfection) surface water or untreated ground water under the direct influence of surface water shall be prohibited.

22.1002 **General Requirements:** Each public water system with a surface water source or a ground water source under the direct influence of surface water must be operated by qualified personnel who meet the requirements of the Division and must provide treatment of that source water that complies with these treatment technique requirements. The treatment technique requirements consist of installing and properly operating water treatment processes which reliably achieve:

A. At least 99.9 percent (3-log) removal and/or inactivation of Giardia lamblia cysts between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer; and

B. At least 99.99 percent (4-log) removal and/or inactivation of viruses between a point where the raw water is not subject to recontamination by surface water runoff and a point downstream before or at the first customer.

22.1003 **Disinfection:** Each public water system with a surface water source or a ground water source under the direct influence of surface water must provide treatment consisting of both filtration as specified in Section 22.1004 and disinfection as follows:

A. The disinfection treatment must be sufficient to ensure that the total treatment processes of that system achieve at least 99.9 percent (3-log) inactivation and/or removal of Giardia lamblia cysts and at least 99.99 percent (4-log) inactivation and/or removal of viruses, as determined by the Division.

B. The residual disinfectant concentration in the water entering the distribution system, measured as specified in Section 22.1005 cannot be less than 0.3 mg/L for more than four (4) hours.

C. The residual disinfectant concentration in the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, as specified in Section 22.1005 cannot be undetectable in more than five (5) percent of the

samples each month, for any two (2) consecutive months that the system serves water to the public. Water in the distribution system with a heterotrophic bacteria concentration less than or equal to five hundred (500) per milliliter, measured as heterotrophic plate count (HPC) as specified in Section 22.1006, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this requirement. Thus, the value V in the following formula cannot exceed five (5) percent in one (1) month, for any two (2) consecutive months.

$$V = \frac{c + d + e}{a + b} \times 100$$

where: a = number of instances where the residual disinfectant concentration is measured;

b = number of instances where the residual disinfectant concentration is not measured but HPC is measured;

c = number of instances where the residual disinfectant concentration is measured but not detected and no HPC is measured;

d = number of instances where no residual disinfectant concentration is detected and where the HPC is >500/ml; and

e = number of instances where the residual disinfectant concentration is not measured and HPC is >500/ml.

If the Division determines, based on site specific considerations, that a system has no means for having a sample transported and analyzed for HPC by an approved laboratory under the requisite time and temperature conditions specified in Section 22.1006, and that the system is providing adequate disinfection in the distribution system, the requirements of this Subsection do not apply.

22.1004 **Filtration:** Each public water system with a surface water source or a ground water source under the direct influence of surface water must provide treatment consisting of both disinfection as specified in Section 22.1003 and filtration that complies with any one (1) of the following by June 29, 1993:

A. **Conventional Filtration or Direct Filtration -** For systems using conventional filtration or direct filtration, the turbidity level of representative samples of a system's filtered must be less than or equal to 0.5 NTU in at least ninety-five (95) percent of the measurements taken each month, measured as specified in Section 22.1006, except that if the Division determines that the system is capable of achieving at least 99.9 percent removal and/or inactivation of Giardia lamblia cysts at some turbidity level higher than 0.5 NTU in at least ninety-five (95) percent of the measurements taken each month, the Division may substitute this higher turbidity limit for that system.

However, in no case may the Division approve a turbidity limit that allows more than one (1) NTU in more than five (5) percent of the samples taken each month, measured as specified in Section 22.1006. The turbidity level of representative samples of a system's filtered water must at no time exceed five (5) NTU, measured as specified in Section 22.1006.

B. Slow Sand Filtration - For systems using slow sand filtration, the turbidity level of representative samples of a system's filtered water must be less than or equal to one (1) NTU in at least ninety-five (95) percent of the measurements taken each month, measured as specified in Section 22.1006, except that if the Division determines there is no significant interference with disinfection at a higher turbidity level, the Division may substitute the higher turbidity limit for that system.

C. Diatomaceous Earth Filtration - For systems using diatomaceous earth filtration, the turbidity level of representative samples of a system's filtered water must be less than or equal to one (1) NTU in at least ninety-five (95) percent of the measurements taken each month, measured as specified in Section 22.1006. The turbidity level of representative samples of a system's filtered water must at no time exceed five (5) NTU, measured as specified in Section 22.1006.

D. Other Filtration Technologies - A public water system may use a filtration technology not listed in this Section if it demonstrates to the Division, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of Section 22.1003, consistently achieves 99.9 percent removal and/or inactivation of Giardia lamblia cysts and 99.99 percent removal and/or inactivation of viruses. For a system that makes this demonstration, the requirements of paragraph B of this Section apply.

22.1005 Monitoring Requirements: - A public water system that uses a surface water source or a ground water source under the direct influence of surface water must monitor in accordance with the following by June 29, 1993:

A. Turbidity measurements as required by Section 22.1004 must be performed on representative samples of the system's filtered water at least every four (4) hours that the system serves water to the public. A public water system may substitute continuous turbidity monitoring for grab sample monitoring if it validates the continuous measurement for accuracy on a regular basis using a protocol approved by the Division. For any systems using slow sand filtration or filtration treatment other than conventional treatment, direct filtration or diatomaceous earth filtration, the Division may reduce the sampling frequency to once per day if it determines that less frequent monitoring is sufficient to indicate effective filtration performance. For systems serving five hundred (500) or fewer persons, the Division

may reduce the turbidity sampling frequency to once per day, regardless of the type of filtration treatment used, if the Division determines that less frequent monitoring is sufficient to indicate effective filtration performance.

B. The residual disinfectant concentration of the water entering the distribution system must be monitored continuously, and the lowest value must be recorded each day, except that if there is a failure in the continuous monitoring equipment, grab sampling every four (4) hours may be conducted in lieu of continuous monitoring, but for no more than five (5) working days following the failure of the equipment, and systems serving 3,300 or fewer persons may take grab samples in lieu of providing continuous monitoring on an ongoing basis at the frequencies each day prescribed below:

System Population	Samples/Day*
<500	1
501-1,000	2
System Population	Samples/Day*
1,001-2,500	3
2,501-3,300	4

\*The day's samples cannot be taken at the same time. The sampling intervals are subject to Division review and approval.

If at any time the residual disinfectant concentration falls below 0.3 mg/L in a system using grab sampling in lieu of continuous monitoring, the system must take a grab sample every four (4) hours until the residual disinfectant concentration is equal to or greater than 0.3 mg/L.

C. The residual disinfectant concentration must be measured at least at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in Section 22.5, except that the Division may allow a public water system which uses both a surface water source or a ground water source under the direct influence of surface water, and a ground water source to take disinfectant residual samples at points other than the total coliform sampling points if the Division determines that such points are more representative of treated (disinfected) water quality within the distribution system. Heterotrophic bacteria, measured as HPC as specified in Section 22.1006, may be measured in lieu of residual disinfectant concentration. If the Division determines, based on site specific considerations, that a system has no means for having a sample transported and analyzed for HPC by an approved laboratory under the requisite time and temperature conditions specified in Section 22.1006 and that the system is providing adequate disinfection in the distribution system, the requirements of this Subsection do not apply.

22.1006 Analytical Methodology - Only the analytical

method(s) specified in this Section, or otherwise approved by EPA, may be used to demonstrate compliance with Sections 22.1002, 22.1003 and 22.1004. Measurement for pH, temperature, turbidity and residual disinfectant concentration must be conducted by a party approved by the Division. Measurements for total coliforms, fecal coliforms and HPC must be conducted by an approved laboratory. Until laboratory approval criteria are developed for the analysis of HPC and fecal coliforms, any laboratory approved for total coliform analysis is deemed approved for HPC and fecal coliform analysis. The following procedures shall be performed in accordance with the publications listed in the following Section. This incorporation by reference was approved by the Director of the Federal register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies of the methods published in Standard Methods published in Standard Methods for the Examination of Water and Wastewater may be obtained from the American Public Health Association et al. 1015 Fifteenth Street, NW., Washington, D.C. 20005; copies of the Minimal Medium ONPG-MUG Method as set forth in the article "National Field Evaluation of a Defined Substrate Method for the Simultaneous Enumeration of Total Coliforms and Escherichia coli from Drinking Water: Comparison with the Standard Multiple Tube Fermentation Method" (Edberg et al), Applied and Environmental Microbiology, Volume 54, pp.1595-1601, June 1988 (as amended under Erratum, Applied and Environmental Microbiology, Volume 54, p. 3197, December 1988), may be obtained from the American Water Works Association Research Foundation, 6666 West Quincy Ave., Denver, Colorado 80235; and copies of the Indigo Method as set forth in the article "Determination of Ozone in Water by the Indigo Method" (Bader and Hoigne), may be obtained from Ozone Science and Engineering, Pergammon Press Ltd., Fairview Park, Elmsford, New York 10523. Copies may be inspected at the U.S.E.P.A., Room EB15, 401 M Street SW., Washington, D.C. 20460 or at the Office of the Federal register, 1100 L Street, NW., Room 8401, Washington, D.C.

A. Total Coliform Concentration - See Section 22.52.

B. Fecal Coliform Concentration - See Section 22.52.

C. Heterotrophic Plate Count - Method 907A (Pour Plate Method), pp. 864-866, as set forth in Standard Methods for the Examination of water and Wastewater, 1986, American Public Health Association et al., 16th edition.

D. Turbidity - See Section 22.702A

E. Residual Disinfectant Concentration - Residual disinfectant concentrations for free chlorine and combined chlorine (chloramines) must be measured by Method 408C (Amperometric Titration Method), pp. 303-306, Method 408D (DPD Ferrous Titrametric Method), pp. 306-309, Method 408E (DPD Colorimetric Method), pp. 309-310, or Method 408F (Leuco Crystal Violet Method), pp. 310-313,

as set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition. Residual disinfectant concentrations for free chlorine and combined chlorine may also be measured by using DPD colorimetric test kits if approved by the Division. Residual disinfectant concentration for ozone must be measured by the Indigo Method as set forth in Bader, H., Hoigne, J., "Determination of Ozone in Water by the Indigo Method; A submitted Standard Method"; Ozone Science and Engineering, Vol. 4 pp. 169-176, Pergammon Press Ltd., 1982, or automated methods which are calibrated in reference to the results obtained by the Indigo Method on a regular basis, if approved by the Division (NOTE - This method will be published in the 17th edition of Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., the Iodometric Method in the 16th edition may not be used). Residual disinfectant concentrations for chlorine dioxide must be measured by Method 410B (Amperometric Method) or Method 410C (DPD Method), pp. 322-324, as set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition.

F. Temperature - Method 212 (Temperature), pp. 126-127, as set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition.

G. pH - Method 423 (pH Value), pp. 429-437, as set forth in Standard Methods for the Examination of Water and Wastewater, 1985, American Public Health Association et al., 16th edition.

1. "Methods of Chemical analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268 (EPA-600/4-79-020), March 1985. Available from ORD Publications, CERL, EPA, Cincinnati, Ohio 45268

2. Annual Book of ASTM Standards, Volume 11.01, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19013.

3. "Standard Methods for the Examination of Water and Wastewater," 16th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.

4. "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Techniques of Water-Resources Investigations of the United States Geological Survey Books, Chapter A1, 1985, Open-File Report 85-495. Available from Open-File Services Section, Wester Distribution Branch, U.S. Geological Survey, MS 306 Box 24525, Denver Federal Center, Denver, Colorado 80225.

5. "Fluoride in Water and Wastewater. Industrial Method #129-71 W." Technicon Industrial Systems.

Tarrytown, New York 10591, December 1972.

6. "Fluoride in Water and Wastewater," Technicon Industrial Systems. Tarrytown, New York 10591, February 1976.

7. "Orion Guide to Water and Wastewater Analysis." Form WeEEG/5880, p. 5, 1985. Orion Research, Inc, Cambridge, Maryland.

8. "Inductively Coupled Plasma Atomic Emission Analysis of Drinking Water," Appendix to Method 200.7, September 1985. U.S.E.P.A. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

9. The addition of 1 mL of 30% of H<sub>2</sub>O<sub>2</sub> to each 100 mL of standards and samples is required before analysis.

10. Prior to dilution of the Arsenic and Selenium calibration standards, add 2 mL of 30% H<sub>2</sub>O<sub>2</sub> for each 100 mL of standard.

11. For approved analytical procedures for metals, the technique applicable to total metals must be used.

None

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT: 7 Delaware Code, Chapter 60

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL: None

#### NOTICE OF PUBLIC COMMENT:

The public hearing on proposed Regulation 37 will be held on Thursday, January 21, 1998, beginning at 6:00 p.m. in the dover Central Middle School Auditorium, Delaware Avenue, Dover, DE.

7. PREPARED BY:

Ronald A. Amirikian, (302)323-4542, December 15, 1998

Regulation No. 37 - NO<sub>x</sub> Budget Program

January 1, 1998

Section 1 - General Provisions

a. The purpose of this regulation is to reduce nitrogen oxides (NO<sub>x</sub>) emissions in Delaware through implementation of Delaware's portion of the Ozone Transport Commission's (OTC) September 27, 1994 Memorandum of Understanding (MOU) by establishing in the State of Delaware a NO<sub>x</sub> Budget Program.

b. A NO<sub>x</sub> *allowance* is an authorization to emit NO<sub>x</sub>, valid only for the purposes of meeting the requirements of this regulation.

1. All applicable state and federal requirements remain applicable.

2. A NO<sub>x</sub> *allowance* does not constitute a security or other form of property.

c. On or after May 1, 1999, the *owner or operator* of each *budget source* shall, not later than December 31 of each calendar year, hold a quantity of NO<sub>x</sub> *allowances* in the *budget source's current year NATS account* that is equal to or greater than the total NO<sub>x</sub> emitted from that *budget source* during the period May 1 through September 30 of the subject year.

d. *Allowance transfers* between *budget sources* sharing a common *owner or operator* and/or *authorized account representative* are subject to all applicable requirements of this regulation, including the *allowance transfer* requirements identified in Section 11 of this regulation.

e. Offsets required for new or modified sources subject to non-attainment new source review must be obtained in accordance with Regulation 25 of Delaware's "Regulations Governing the Control of Air Pollution" and Section 173 of

## DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

### DIVISION OF AIR AND WASTE MANAGEMENT

#### AIR QUALITY MANAGEMENT SECTION

Statutory Authority: 7 Delaware Code,  
Chapter 60 (7 Del.C. Chp. 60)

1. TITLE OF THE REGULATIONS:

REGULATION 37 - NO<sub>x</sub> Budget Program

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

The Department is proposing a new regulation that will require boilers and indirect heat exchangers equal to and larger than 250 mmBTU/hr, and electrical generating units equal to and larger than 25 MWe to reduce nitrogen oxide (NO<sub>x</sub>) emissions. Since the air in Delaware does not meet the national ambient air quality standard (NAAQS) for the pollutant ozone, and since NO<sub>x</sub> is a key participant in the formation of ozone, NO<sub>x</sub> emissions must be reduced in order for Delaware to attain the NAAQS for ozone. To aid industry in making the necessary reductions in a more cost effective manner, the Department is proposing to allow compliance with the emission caps established by the proposed regulation through a regional cap and trade program. This proposal is substantially the same regulation that was published in the November 1997 and February 1998 Delaware Register, and that was vacated by the Delaware Superior Court in December 1998.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

the Clean Air Act. *Allowances* are not considered offsets within the context of this regulation.

f. Nothing in this regulation shall be construed to limit the authority of the Department to condition, limit, suspend, or terminate any *allowances* or authorization to emit.

g. The Department shall maintain an up to date listing of the NO<sub>x</sub> sources subject to this regulation.

1. The listing shall identify the name of each NO<sub>x</sub> *budget source* and its annual *allowance allocation*, if any.

2. The Department shall submit a copy of the listing to the *NATS Administrator* by January 1 of each year, commencing in 1999.

Section 2 - Applicability

a. The NO<sub>x</sub> Budget Program applies to any *owner or operator* of a *budget source* where that source is located in the State of Delaware.

b. Any person who owns, operates, leases, or controls a stationary NO<sub>x</sub> source in Delaware not subject to this program, by definition, may choose to *opt into* the NO<sub>x</sub> Budget Program in accordance with the requirements of Section 8 of this regulation. Upon approval of the *opt-in* application by the Department, the person shall be subject to all terms and conditions of this regulation.

c. A *general account* may be established in accordance with Section 7 of this regulation. The person responsible for the *general account* shall be responsible for meeting the requirements for an *Authorized Account Representative* and applicable *account* maintenance fees.

Section 3 - Definitions

For the purposes of this regulation, the following definitions apply. All terms not defined herein shall have the meaning given them in the Clean Air Act and Regulation 1 of the State of Delaware "Regulations Governing the Control of Air Pollution".

a. *Account* means the place in the NO<sub>x</sub> *Allowance Tracking System* where allowances held by a *budget source* (*compliance account*), or allowances held by any person (*general account*), are *recorded*.

b. *Account number* means the identification number assigned by the NO<sub>x</sub> *Allowance Tracking System* (*NATS Administrator*) to a *compliance* or *general account* pursuant to Section 10 of this regulation.

c. *Administrator* means the Administrator of the U.S. EPA. The Administrator of the U.S. EPA or his designee(s) shall manage and operate the NO<sub>x</sub> *Allowance Tracking System* and the NO<sub>x</sub> *Emissions Tracking System*.

d. *Allocate* or *Allocation* means the assignment of *allowances* to a *budget source* through this regulation; and as *recorded* by the Administrator in a NO<sub>x</sub> *Allowance Tracking System compliance account*.

e. *Allowance* means the limited authorization to emit

one ton of NO<sub>x</sub> during a specified *control period*, or any *control period* thereafter subject to the terms and conditions for use of *banked allowance* as defined by this regulation. All *allowances* shall be allocated, transferred, or used as whole allowances. To determine the number of whole allowances, the number of allowances shall be rounded down for decimals less than 0.50 and rounded up for decimals of 0.50 or greater.

f. *Allowance deduction* means the withdrawal of allowances for permanent retirement by the *NATS Administrator* from a NO<sub>x</sub> *Allowance Tracking System account* pursuant to Section 16 of this regulation.

g. *Allowance transfer* means the conveyance to another *account* of one or more *allowances* from one *account* to another by whatever means, including but not limited to purchase, trade, auction, or gift in accordance with the procedures established in Section 11 of this regulation, effected by the submission of an *allowance transfer* request to the *NATS Administrator*.

h. *Alternative monitoring system* means a system or component of a system, designed to provide direct or indirect data of mass emissions per time period, pollutant concentrations, or volumetric flow as provided for in Section 13 of this regulation.

i. *Authorized Account Representative (AAR)* means the responsible person who is authorized, in writing, to transfer and otherwise manage *allowances* as well as certify reports to the *NATS* and the *NETS*.

j. *Banked Allowance* means an *allowance* which is not used to reconcile emissions in the designated year of *allocation* but which is carried forward into the next year and flagged in the *compliance* or *general account* as "banked".

k. *Banking* means the retention of unused *allowances* from one *control period* for use in a future *control period*.

l. *Baseline* means, except for the purposes of Section 12(d) (Early Reductions) of this regulation, the NO<sub>x</sub> emission inventory approved by the Ozone Transport Commission on June 13, 1995, and revised thereafter, as the official 1990 baseline emissions of May 1 through September 30 for purposes of the NO<sub>x</sub> Budget Program.

m. *Boiler* means a unit which combusts *fossil fuel* to produce steam or to heat water, or any other heat transfer medium.

n. *Budget or Emission Budget* means the numerical result in tons per *control period* of NO<sub>x</sub> emissions which results from the application of the emission reduction requirement of the *OTC MOU* dated September 27, 1994, and which is the maximum amount of NO<sub>x</sub> emissions which may be released from the *budget sources* collectively during a given *control period*.

o. *Budget source* means a *fossil fuel fired boiler* or *indirect heat exchanger* with a *maximum heat input* capacity of 250 MMBTU/Hour, or more; and all *electric generating*

units with a generator *nameplate capacity* of 15 MW, or greater. (Although not a *budget source* by definition, any person who applies to *opt into* the NO<sub>x</sub> Budget Program shall be considered a *budget source* and subject to applicable program requirements upon approval of the application for *opt-in*.)

p. *Clean Air Act* means the federal Clean Air Act (42 U.S.C. 7401- 7626).

q. *Compliance account* means the *account* for a particular *budget source* in the NO<sub>x</sub> Allowance Tracking System, in which are held current and/or future year allowances.

r. *Continuous Emissions Monitoring System (CEMS)* means the equipment required by this regulation used to sample, analyze, and measure which will provide a permanent record of emissions expressed in pounds per million British Thermal Units (Btu) and tons per day. The following systems are component parts included in a continuous emissions monitoring system: nitrogen oxides pollutant concentration monitor, diluent gas monitor (oxygen or carbon dioxide), a data acquisition and handling system, and flow monitoring systems (where appropriate).

s. *Control period* means the period beginning May 1 of each year and ending on September 30 of the same year, inclusive.

t. *Current year* means the calendar year in which the action takes place or for which an *allocation* is designated. For example, an *allowance allocated* for use in 1999 which goes unused and becomes a *banked allowance* on January 1, 2000 can be used in the "Current Year" 2000 subject to the conditions for *banked allowance* use as stated in this regulation.

u. *Early Reduction Allowance* means an *allowance* credited for a NO<sub>x</sub> emission reduction achieved during the *control periods* of either 1997 or 1998, or both.

v. *Electric generating unit* means any *fossil fuel fired* combustion unit which provides electricity for sale or use.

w. *Excess emissions* means emissions of nitrogen oxides reported by a *budget source* during a particular *control period*, rounded to the nearest whole ton, which is greater than the number of *allowances* which are available in that *budget source's* NO<sub>x</sub> Allowance Tracking System *compliance account* on December 31 of the calendar year for the subject NO<sub>x</sub> control season. For the purpose of determining whole tons on *excess emissions*, the number of tons of *excess emissions* shall be rounded down for decimals less than 0.50 and rounded up for decimals of 0.50 or greater.

x. *Existing budget source* means a *budget source* that operated at any time during the period beginning May 1, 1990 through September 30, 1990.

y. *Fossil fuel* means natural gas, petroleum, coal or any form of solid, liquid or gaseous fuel derived wholly, or in

part, from such material. For the purposes of this regulation only, this definition does not include CO derived from any source.

z. *Fossil fuel fired* means the combustion of *fossil fuel* or any derivative of *fossil fuel* alone, or, if in combination with any other fuel, where *fossil fuel* comprises 51% or greater of the annual *heat input* on a BTU basis.

aa. *General Account* means an *account* in the NATS that is not a *compliance account*.

bb. *Heat input* means heat derived from the combustion of any fuel in a *budget source*. *Heat input* does not include the heat derived from preheated combustion air, recirculated flue gas, or exhaust from other sources.

cc. *Indirect heat exchanger* means combustion equipment in which the flame and/or products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls, which includes, but is not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, and fuel-fired reactors such as steam hydrocarbon reformer heaters and pyrolysis heaters.

dd. *Maximum heat input capacity* means the ability of a *budget source* to combust a stated maximum amount of fuel on a steady state basis, as determined by the greater of the physical design rating or the actual maximum operating capacity of the *budget source*. *Maximum heat input capacity* is expressed in millions of British Thermal Units (MMBTU) per unit of time which is the product of the gross caloric value of the fuel (expressed in MMBTU/pound) multiplied by the fuel feed rate in the combustion device (expressed in pounds of fuel/time).

ee. *Nameplate capacity* means the maximum electrical generating output that a generator can sustain when not restricted by seasonal or other deratings.

ff. *New budget source* means a NO<sub>x</sub> source that is a *budget source*, by definition, that did not operate between May 1, 1990 and September 30, 1990, inclusive. A NO<sub>x</sub> source, that is a *budget source* by definition, that was constructed prior to or during the period May 1, 1990 through September 30, 1990, but did not operate during the period May 1, 1990 through September 30, 1990, shall be treated as a *new budget source*.

gg. *NO<sub>x</sub> Allowance Tracking System (NATS)* means the computerized system established and used by the *Administrator* to track the number of *allowances* held and used by any person.

hh. *NO<sub>x</sub> Emissions Tracking System (NETS)* means the computerized system established and used by the *Administrator* to track and provide a permanent record of NO<sub>x</sub> emissions from each *budget source*.

ii. *Non-Part 75 Budget Source* means any *budget source* not subject to the requirements for emissions monitoring

adopted pursuant to Regulation 36 of the State of Delaware "Regulations Governing the Control of Air Pollution".

jj. *Off budget* means not subject to this regulation.

kk. *Off budget source* means any source of NO<sub>x</sub> emissions that is not included in the NO<sub>x</sub> Budget Program as either a *budget source*, by definition, or as an *opt in source*.

ll. *Opt in* means to choose to voluntarily participate in the NO<sub>x</sub> Budget Program, and comply with the terms and conditions of this regulation.

mm. *Opt-in-baseline* means the Department approved *heat input* and/or NO<sub>x</sub> emissions for use as a basis for *allowance allocation* and deduction.

nn. *OTC* means the Ozone Transport Commission.

oo. *OTC MOU* means the Memorandum of Understanding that was signed by representatives of eleven states and the District of Columbia on September 27, 1994.

pp. *OTR* means the Ozone Transport Region as designated by Section 184(a) of the Clean Air Act.

qq. *Owner or Operator* means any person who is an owner or who operates, controls or supervises a *budget source* and shall include, but not be limited to, any holding company, utility system or plant manager of a *budget source*.

rr. *Quantifiable* means a reliable and replicable basis for calculating the amount of an emission reduction that is acceptable to both the Department and to the Administrator of the U.S. EPA.

ss. *Part 75 Budget Source* means any *budget source* subject to the requirements for emissions monitoring adopted pursuant to Regulation 36 of the State of Delaware "Regulations Governing the Control of Air Pollution".

tt. *Real* means a reduction in the rate of emissions, quantified retrospectively, net of any consequential increase in actual emissions due to shifting demand.

uu. *Recorded* with regard to an *allowance transfer* or *deduction* means that an *account* in the *NATS* has been updated by the *Administrator* with the particulars of an *allowance transfer* or *deduction*.

vv. *Regional NO<sub>x</sub> budget* means the maximum amount of NO<sub>x</sub> emissions which may be released from all *budget sources*, collectively throughout the *OTR*, during a given *control period*.

ww. *Repowering*, for the purpose of *early reduction credit* means either: 1) Qualifying Repowering Technology as defined by 40 CFR, Part 72 or; 2) the replacement of a *budget source* by either a new combustion source or the purchase of heat or power from the owner of a new combustion source, provided that: a) The replacement source (regardless of owner) is on the same, or contiguous property as the *budget source* being replaced; b) The replacement source has a maximum heat output rate that is equal to or greater than the maximum heat output rate of the *budget source* being replaced; or, c) The replacement source has a power output rate that is equal to or greater than the

power output rate of the combustion source being replaced; and d) The replacement source incorporates technology capable of controlling multiple combustion pollutants simultaneously with improved fuel efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.

xx. *Submitted* means sent to the appropriate authority under the signature of the *authorized account representative* or alternate *authorized account representative*. An official U.S. Postal Service postmark, or electronic time stamp, shall establish the date of submittal.

yy. *Surplus* means that, at the time the reduction was made, the emission reduction was not required by Delaware's SIP, was not relied upon in an applicable attainment demonstration, was not required by state or federal permit or order, and was made enforceable in a permit that was issued after the date of the *OTC MOU* (September 27, 1994).

zz. *Use* means, for purposes of emission reductions moved off budget, that approval of the Department has been obtained to apply the emission reduction at a source.

Section 4 - Allowance Allocation

a. This program establishes NO<sub>x</sub> emission *allowances* for each NO<sub>x</sub> *control period* beginning May 1, 1999 through the NO<sub>x</sub> *control period* ending September 30, 2002. *Allowance allocation* levels for each of these annual NO<sub>x</sub> *control periods* are based on actual May 1, 1990 to September 30, 1990 actual NO<sub>x</sub> mass emissions.

b. The NO<sub>x</sub> Budget Program does not establish NO<sub>x</sub> emission *allowances* for any NO<sub>x</sub> *control period* subsequent to the year 2002 NO<sub>x</sub> *control period*. NO<sub>x</sub> emission *allowances* for each NO<sub>x</sub> *control period* subsequent to the year 2002 NO<sub>x</sub> *control period* will established through amendment of this regulation.

c. NO<sub>x</sub> *allowance allocations* to *budget sources* may be made only by the Department in accordance with Section 4, Section 8, and Section 12 of this regulation.

d. Appendix A of this regulation identifies the *budget sources* and identifies the number of *allowances* each *budget source* is *allocated*. *Allowance allocations* to each of the *budget sources* was determined as follows:

1. Unless otherwise noted in Appendix A of this regulation, the document EPA-454/R-95-013, "1990 OTC NO<sub>x</sub> Baseline Emission Inventory" served as the basis for determination of the number of *OTC MOU Allowances* *allocated* to each *existing budget source*.

i. Each *existing budget source's OTC MOU Allowance allocation* for NO<sub>x</sub> *control periods* during the period May 1, 1999 to September 30, 2002, inclusive, was identified in the referenced document, Appendix B, Final

OTC NO<sub>x</sub> Baseline Inventory, Delaware, Point-Segment Level Data, Phase II Target (Point Level).

ii. The identified values were rounded to the nearest whole *allowance* by rounding down for *allowances* less than 0.5 and rounding up for decimals of 0.5 or greater.

2. Exceptional Circumstances *Allowances*, as granted by the *OTC* and as identified in the document EPA-454/R-95-013, "1990 OTC NO<sub>x</sub> Baseline Emission Inventory" for the *existing budget sources*, are identified in Appendix A. These Exceptional Circumstance *Allowances* were adjusted for the appropriate NO<sub>x</sub> emission rate reduction requirement prior to inclusion in Appendix A.

3. The *OTC* allocated to the state of Delaware an additional 86 *allowances*, referred to as reserve *allowances*, prior to application of NO<sub>x</sub> emission rate reduction requirements, as its share of a total 10,000 ton reserve. Application of *OTC* required emission reductions resulted in a total of 35 Reserve *Allowances* available for distribution, as identified in the document EPA-454/R-95-013, "1990 OTC NO<sub>x</sub> Baseline Emission Inventory".

i. Each of the 28 *existing budget sources* identified in Appendix A as the *existing budget sources* were allocated one (1) reserve *allowance*.

ii. One (1) additional reserve *allowance* was allocated to each of the four organizations with *existing budget sources*. The additional reserve *allowance* for each of the four organizations was added to the respective *existing budget source* with the greatest *heat input* rating.

iii. The remaining three (3) reserve *allowances* shall be held by the Department unused for the NO<sub>x</sub> *control periods* between May 1, 1999 and September 30, 2002.

iv. Reserve *Allowances* are applicable only for the NO<sub>x</sub> *control periods* during the period May 1, 1999 to September 30, 2002, inclusive. Reserve *Allowances* do not exist for NO<sub>x</sub> *control periods* subsequent to the year 2002.

4. The final NO<sub>x</sub> *allowance allocation* for each of the 28 *existing budget sources*, for each of the NO<sub>x</sub> *control periods* during the period of May 1, 1999 and September 30, 2002, is the sum of the values determined in Sections 4(d)(1) - (3) and is identified in Appendix A. For the *existing budget sources* that were not identified in the document "1990 OTC NO<sub>x</sub> Baseline Emissions Inventory", the final *allowance allocation* includes an *allowance allocation* determined in accordance with the procedures identified in Section 4(f)(2)(i) - (ii) of this regulation.

5. Known operating NO<sub>x</sub> sources, that are *budget sources by definition*, that did not operate in the May 1, 1990 to September 30, 1990 period are identified in Appendix A with a final *allowance allocation* of zero (0) *allowances*.

e. *Budget sources* that receive a NO<sub>x</sub> emission *allowance allocation* and subsequently cease to operate shall continue to receive *allowances* for each *control period*

unless the allowances are reduced under Section 4(g) of this regulation or a request to reallocate *allowances* has been approved in accordance with Section 11 of this regulation.

f. Any NO<sub>x</sub> source, that is a *budget source* by definition, and that is not included in Attachment A of this regulation and which operated at any time between May 1, 1990 and September 30, 1990, inclusive, shall comply with the requirements of this regulation prior to operating in any NO<sub>x</sub> *control period*.

1. The *owner or operator* shall submit to the Department an application including, as a minimum, the following information:

i. Identification of the source by plant name, address, and plant combustion unit number or equipment identification number.

ii. The name, address, telephone and facsimile number of the *authorized account representative* and, if desired, of an alternative authorized account representative.

iii. A list of the owners and operators of the source.

iv. A description of the source, including fuel type(s), maximum rated heat input capacity and electrical output rating where applicable.

v. Documentation of the May 1, 1990 - September 30, 1990 mass emissions (in tons), including:

A. Quantification of the mass emissions (in tons).

B. A description of the method used to determine the NO<sub>x</sub> emissions.

C. Under no circumstances shall the emissions exceed any applicable federal or state emission limit.

vi. Documentation of the May 1, 1990 - September 30, 1990 *heat input* (in MMBTU), including:

A. Quantification of the *heat input* (in MMBTU/hr).

B. A description of the method used to determine the *heat input*.

C. The *heat input* shall be consistent with the *baseline control period* NO<sub>x</sub> mass emissions determined in Section 4(f)(1)(v) of this regulation.

vii. Determination of the May 1, 1990 - September 30, 1990 NO<sub>x</sub> emission rate, consistent with the guidelines of the "Procedures for Development of the OTC NO<sub>x</sub> Baseline Emission Inventory", using the mass emissions identified in Section 4(f)(1)(v) of this regulation and the *heat input* identified in Section 4(f)(1)(vi) of this regulation.

viii. An emission monitoring plan in accordance with Section 13 of this regulation.

ix. A statement that the *submitted* information is representative of the true emissions during the May 1, 1990 - September 30, 1990 and that the source was operated

in accordance with all applicable requirements during that time.

x. The following statement: *"I am authorized to make this submission on behalf of the owners and operators of the budget source for which this submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."*

xi. Signature of the *authorized account representative* or *alternate authorized account representative* and date of signature.

2. For sources that notify the Department that they are subject to this regulation no later than April 30, 1999, the Department shall *allocate* NO<sub>x</sub> emissions *allowances* to the source as follows:

i. For *fossil fuel fired boilers* and *indirect heat exchangers* with a maximum *heat input* capacity of 250 MMBTU/hr or more, *allowance allocations* shall be determined as follows:

A. For sources located in New Castle and Kent counties, *allowance allocations* shall be based on the more stringent of the following:

1. The less stringent of:

a. The actual May 1, 1990 to September 30, 1990 mass emissions reduced by 65%; or,

b. The mass emissions resulting from the multiplication of the actual May 1, 1990 to September 30, 1990 heat input by a NO<sub>x</sub> emissions rate of 0.20 lb/MMBTU.

2. If an approved RACT emissions limit results in emissions that are lower than the less stringent of the limits calculated in Sections 4(f)(2)(i)(A)(1)(a) and 4(f)(2)(i)(A)(1)(b), then the RACT value shall be the emissions limit for the NO<sub>x</sub> Budget Program.

B. For sources located in Sussex county, *allowance allocations* shall be based on the more stringent of the following:

1. The less stringent of:

a. The actual May 1, 1990 to September 30, 1990 mass emissions reduced by 55%; or,

b. The mass emissions resulting from the multiplication of the actual May 1, 1990 to September 30, 1990 heat input by a NO<sub>x</sub> emissions rate of 0.20 lb/MMBTU.

2. If an approved RACT emissions limit results in emissions that are lower than the less stringent of the limits calculated in Sections 4(f)(2)(i)(B)(1)(~~ai~~) and 4(f)(2)(i)(B)(1)(~~bii~~), then the RACT value shall be the emissions limit for the NO<sub>x</sub> Budget Program.

ii. For *electric generating units* with a rated output of 15 MW or more that is not affected by Section 4(f)(2)(i) of this regulation, *allowance allocations* shall equal the more stringent of the May 1, 1990 to September 30, 1990 actual emissions or that derived from the application of an approved RACT limit to the actual May 1, 1990 to September 30, 1990 heat input value.

3. Within 60 days of receipt of the submittal, the Department shall review the submittal and take the following actions:

i. If the Department does not approve the submittal, the *authorized account representative* identified in the submittal shall be notified in writing of the finding and the reason(s) for the finding.

ii. If the Department approves the submittal, the Department shall:

A. Notify in writing the *authorized account representative* identified in the submittal.

B. The Department shall notify the *OTC* of the *allowance allocation* and authorize the *NATS Administrator* to open a *compliance account* for the subject source.

4. Any subject source that does not notify the Department prior to May 1, 1999, or that can not quantify its May 1, 1990 - September 30, 1990 emissions rate or heat input, shall be treated as a new *budget source* in accordance with Section 9 of this regulation.

5. Compliance with Section 4(f) of this regulation does not imply compliance nor sanction noncompliance with this regulation for prior NO<sub>x</sub> *control period* operation.

g. If, after the effective date of this regulation, a *budget source* reduces *control period* emissions and said emission reductions are to be *used* by a source that is not a *budget source* (i.e. the emissions are moved off *budget*), that *budget source* shall request that the Department reduce its current year and future year allocation.

1. The request shall be *submitted* to the Department not later than the date that the request to *use* the emissions reduction at the *off budget source is submitted*, and shall include the following information, as a minimum:

i. The *compliance account* number of the *budget source* providing the emissions reduction.

ii. Identification of the NO<sub>x</sub> source that is to *use* the emissions reduction, including:

A. Name and mailing address of the source.

B. Name, mailing address, and telephone

number of a knowledgeable representative from that source.

iii. Identification of the calendar date for which the reduction of *current year* and future year allocations is to be effective, which shall not be later than the effective date of the *use* of the emissions reduction.

iv. A statement documenting the physical changes to the *budget source* or changes in the methods of operating the *budget source* which resulted in the reduction of NO<sub>x</sub> emissions.

v. Quantification and justifying documentation of the NO<sub>x</sub> emissions reduction, including a description of the methodology used to verify the emissions reduction.

vi. The quantity of *current year* and future year allocations to be reduced, which is the portion of the *control period* emissions reduction that is to move off budget.

vii. Certification by the *authorized account representative* or alternate *authorized account representative* including the following statement in verbatim: “*I am authorized to make this submission on behalf of the owners or operators of the NO<sub>x</sub> source and I hereby certify under penalty of law, that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment.*”

viii. Signature of the *authorized account representative* or alternate *authorized account representative* of the *budget source* providing the emissions reduction and the date of signature.

2. Within 30 days of receipt of the submittal, the Department shall review the submittal and take the following actions:

i. If the Department does not approve the request, the *authorized account representative* identified on the submittal shall be notified in writing of the finding and the reason(s) for the finding.

ii. If the Department approves the request, the Department shall notify in writing the *authorized account representative* identified on the request and the following provisions apply:

A. The Department shall authorize the *NATS Administrator* to deduct from the *compliance account* of the *budget source* providing the emissions reduction the quantity of *current year* and future year *allowances* to be reduced.

B. The deducted *current year* and future year *allowances* shall be permanently retired from the NO<sub>x</sub> Budget Program.

Section 5 - Permits

a. No later than the effective date of this regulation, the *owner or operator* of an *existing budget source* shall request amendment of any applicable construction or operating permit issued, or application for any permit submitted, in accordance with the State of Delaware “Regulations Governing the Control of Air Pollution”. The amendment request shall include the following:

1. A condition(s) that requires the establishment of a *compliance account* in accordance with Section 6 of this regulation.

2. A condition(s) that requires NO<sub>x</sub> mass emission monitoring during NO<sub>x</sub> *control periods* in accordance with Section 13 of this regulation.

3. A condition(s) that requires NO<sub>x</sub> mass emission reporting and other reporting requirements in accordance with Section 15 of this regulation.

4. A condition(s) that requires end-of-season *compliance account* reconciliation in accordance with Section 16 of this regulation.

5. A condition(s) that requires compliance certification in accordance with Section 17 of this regulation.

6. A condition(s) that prohibits the source from emitting NO<sub>x</sub> during each NO<sub>x</sub> *allowance control period* in excess of the amount of NO<sub>x</sub> *allowances* held in the source’s *compliance account* for the NO<sub>x</sub> *allowance control period* as of December 31 of the subject year.

7. A condition(s) that authorizes the transfer of *allowances* for purposes of compliance with this regulation, containing reference to the source’s *NATS compliance account* and the *authorized account representative* and alternate *authorized account representative*, if any.

b. Permit revisions/amendments shall not be required for changes in emissions that are authorized by *allowances* held in the *compliance account* provided that any transfer is in compliance with this regulation by December 31 of each year, is in compliance with the authorization for transfer contained in the permit, and does not affect any other applicable state or federal requirement.

c. Permit revisions/amendments shall not be required for changes in *allowances* held by the source which are acquired or transferred in compliance with this regulation and in compliance with the authorization for transfer in the permit.

d. Any equipment modification or change in operating practices taken to meet the requirements of this program shall be performed in accordance with all applicable state and federal requirements.

Section 6 - Establishment of Compliance Accounts

a. The *owner or operator* of each *existing budget source*, and each *new budget source*, shall designate one *authorized account representative* and, if desired, one alternate *authorized account representative* for that *budget source*. The *authorized account representative* or alternate

*authorized account representative* shall submit to the Department an "Account Certificate of Representation".

1. For *existing budget sources*, initial designations shall be *submitted* no later than the effective date of this regulation.

2. For *new budget sources* that began operation prior to May 1, 1999, initial designations shall be *submitted* no later than April 30, 1999. For *new budget sources* that begin operation on or after May 1, 1999, initial designations shall be *submitted* no less than 30 days prior to the first hour of operation in a NO<sub>x</sub> *control period*.

3. An *authorized account representative* or alternate account representative may be replaced at any time with the submittal of a new "Account Certificate of Representation". Notwithstanding any such change, all submissions, actions, and inactions by the previous *authorized account representative* or alternate *authorized account representative* prior to the date and time the *NATS Administrator* receives the superseding "Account Certificate of Representation" shall be binding on the new *authorized account representative*, on the new alternate *authorized account representative*, and on the *owners and operators of the budget source*.

4. Within 30 days following any change in *owner or operator, authorized account representative, or any alternate authorized account representative*, the *authorized account representative* or the alternate *authorized account representative* shall submit a revision to the "Account Certificate of Representation" amending the outdated information.

b. The "Account Certificate of Representation" shall be signed and dated by the *authorized account representative* or the alternate *authorized account representative* for the NO<sub>x</sub> *budget source* and shall contain, as a minimum, the following information:

1. Identification of the NO<sub>x</sub> *budget source* by plant name, address, and plant combustion unit number or equipment identification number for which the certification of representation is *submitted*.

2. The name, address, telephone and facsimile number of the *authorized account representative* and alternate authorized account representative, if applicable.

3. A list of the owners and operators of the NO<sub>x</sub> *budget source*.

4. A description of the source, including fuel type(s), *maximum heat input capacity*, and electrical output rating where applicable.

5. The following statement: "*I am authorized to make this submission on behalf of the owners and operators of the budget source for which this submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on*

*my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.*"

6. Signature of the *authorized account representative* or alternate *authorized account representative* and date of signature.

c. The Department shall review all *submitted* "Account Certificate of Representation" forms. Within 30 days of receipt of the "Account Certificate of Representation", the Department shall take one of the following actions:

1. If not approved by the Department, the Department shall notify in writing the *authorized account representative* identified in the "Account Certificate of Representation" of the reason(s) for disapproval.

2. If approved by the Department, the Department shall forward the "Account Certificate of Representation" to the *NATS Administrator* and authorize the *NATS Administrator* to open/revise a *compliance account* for the *budget source*.

d. *Authorized account representative* and alternate *authorized account representative* designations or changes become effective upon the logged date of receipt of a completed "Account Certificate of Representation" by the *NATS Administrator*. The *NATS Administrator* shall acknowledge receipt and the effective date of the designation or changes by written correspondence to the *authorized account representative*.

e. The alternate *authorized account representative* shall have the same authority as the *authorized account representative*. Correspondence from the *NATS Administrator* shall be directed to the *authorized account representative*.

f. Only the *authorized account representative* or the alternate *authorized account representative* may request transfers of NO<sub>x</sub> *allowances* in a *NATS account*. The *authorized account representative* shall be responsible for all transactions and reports *submitted* to the *NATS*.

Section 7 - Establishment of General Accounts

a. An *authorized account representative* and alternate *authorized account representative*, if any, shall be designated for each *general account* by the *general account owners*. Said representative shall have obligations similar to that of an *authorized account representative* of a *budget source*.

b. Any person or group of persons may open a *general account* in the *NATS* for the purpose of holding and transferring *allowances*. That person or group of persons shall submit to the Department an application to open a

*general account*. The *general account* application shall include the following minimum information:

1. Organization or company name to be used for the general account name listed in the NATS, and type of organization (if applicable).

2. The name, address, telephone, and facsimile number of the *account's authorized account representative* and alternate authorized account representative, if applicable.

3. A list of all persons subject to a binding agreement for the *authorized account representative* or alternate *authorized account representative* to represent their ownership interest with respect to the *allowances* held in the *general account*.

4. The following statement: "I certify that I was selected under the terms of an agreement that is binding on all persons who have an ownership interest with respect to allowances held in the NO<sub>x</sub> allowance tracking system (NATS) account. I certify that I have all necessary authority to carry out my duties and responsibilities on behalf of the persons with ownership interest and that they shall be fully bound by my actions, inactions, or submissions under this regulation. I shall abide by my fiduciary responsibilities assigned pursuant to the binding agreement. I am authorized to make this submission on behalf of the persons with an ownership interest for whom this submission is made. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false material information, or omitting material information, including the possibility of fine or imprisonment for violations."

5. Signature of the *general account's authorized account representative* or alternate *authorized account representative* and date of signature.

c. The Department shall review all submitted *general account* and revised *general account* applications. Within 30 days of receipt of the application, the Department shall take one of the following actions:

1. If not approved by the Department, the Department shall notify in writing the *authorized account representative* identified in the *general account* application of the reason(s) for disapproval.

2. If approved by the Department, the Department shall forward the *general account* application to the NATS Administrator and authorize the NATS Administrator to open/revise a *general account* in the organization or company name identified in the *general account* application.

d. No *allowance transfer* shall be recorded for a *general account* until the NATS Administrator has established the

*new account*.

e. The *authorized account representative* or alternate *authorized account representative* of an established *general account* may transfer *allowances* at any time in accordance with Section 11 of this regulation.

f. An *authorized account representative* or alternative account representative of an existing *general account* may be replaced by submitting to the Department a revised *general account* application in accordance with Section 7(b) of this regulation.

g. The *authorized account representative* or alternate *authorized account representative* of a *general account* may apply to the Department to close the *general account* as follows:

1. By submitting a copy of an *allowance transfer* request to the NATS Administrator authorizing the transfer of all *allowances* held in the *account* to one or more other *accounts* in the NATS and/or retiring *allowances* held in the *account*.

2. By submitting to the Department, in writing, a request to delete the *general account* from the NATS. The request shall be certified by the *authorized account representative* or alternate *authorized account representative*.

3. Upon approval, the Department shall authorize the NATS Administrator to close the *general account* and confirm closure in writing to the *general account's authorized account representative*.

#### Section 8 - Opt In Provisions

Except as provided for in Section 4(g) of this regulation, the owner or operator of any stationary source in the state of Delaware that is not subject to the NO<sub>x</sub> Budget Program by definition, may choose to *opt into* the NO<sub>x</sub> Budget Program as follows:

a. The *owner or operator* of a stationary source who chooses to *opt into* the NO<sub>x</sub> Budget Program shall submit to the Department an *opt-in* application. The *opt-in* application shall include, as a minimum, the following information:

1. Identification of the *opt-in* source by plant name, address, and plant combustion unit number or equipment identification number.

2. The name, address, telephone and facsimile number of the *authorized account representative* and, if desired, of an alternative authorized account representative.

3. A list of the owners and operators of the *opt-in* source.

4. A description of the *opt-in* source, including fuel type(s), maximum rated heat input capacity and electrical output rating where applicable.

5. Documentation of the *opt-in-baseline control period* mass emissions (in tons).

i. The *opt-in-baseline control period* emissions

shall be the lower of the average of the mass emissions from the immediately preceding two consecutive NO<sub>x</sub> control periods and the allowable emissions.

A. If the mass emissions from the preceding two control periods are not representative of normal operations, the Department may approve use of an alternative two consecutive NO<sub>x</sub> control periods within the five years preceding the date of the opt-in application.

B. If the opt-in source does not have two consecutive years of operation, the owner or operator shall identify the lower of the permitted allowable NO<sub>x</sub> emissions and any applicable Federal or State emission limitation as the opt-in-baseline emissions.

ii. The documentation shall include:

A. Identification of the time period represented by the emissions data.

B. Quantification of the opt-in-baseline control period mass emissions (in tons).

C. A description of the method used to determine the opt-in-baseline control period NO<sub>x</sub> emissions.

6. Documentation of the opt-in-baseline NO<sub>x</sub> control period heat input (in MMBTU).

i. The opt-in-baseline control period heat input shall be consistent with the opt-in-baseline control period NO<sub>x</sub> mass emissions determined in Section 8(a)(5) of this regulation.

ii. The documentation shall include:

A. Quantification of the opt-in-baseline control period heat input (in MMBTU/hr).

B. A description of the method used to determine the opt-in-baseline control period heat input.

7. Determination of the opt-in-baseline NO<sub>x</sub> emission rate, consistent with the guidelines of the "Procedures for Development of the OTC NO<sub>x</sub> Baseline Emission Inventory", using the opt-in-baseline control period mass emissions identified in Section 8(a)(5) of this regulation and the opt-in-baseline NO<sub>x</sub> control period heat input identified in Section 8(a)(6) of this regulation.

8. An emission monitoring plan in accordance with Section 13 of this regulation.

9. A statement that the source was operated in accordance with all applicable requirements during the control periods.

10. The following statement: "I am authorized to make this submission on behalf of the owners and operators of the budget source for which this submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief

true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

11. Signature of the authorized account representative or alternate authorized account representative and date of signature.

b. Within 60 days of receipt of any opt-in application, the Department shall take the following actions:

1. The Department shall review the application for completeness and accuracy and:

i. Verify that the monitoring methods used to determine the opt-in-baseline control period NO<sub>x</sub> mass emissions and the opt-in-baseline NO<sub>x</sub> control period heat input are consistent with those described in Section 13 of this regulation.

ii. Verify that the opt-in-baseline emissions were calculated in accordance with the guidelines in the "Procedures for Development of the OTC NO<sub>x</sub> Baseline Emission Inventory".

2. If the Department disapproves the opt-in application, the authorized account representative identified in the opt-in application shall be notified in writing of the determination and the reason(s) for the application not being approved.

3. If the Department determines that the opt-in application is acceptable, the Department shall request the OTC Stationary/Area Source Committee to review the application. Within 30 days of receiving the OTC Stationary/Area Source Committee comments, the Department shall consider the comments and take the following action:

i. If it is determined that the opt-in application does not properly justify opting the source into the NO<sub>x</sub> Budget Program, the Department shall notify the authorized account representative in writing of the determination and the reason(s) for the application not being accepted.

ii. If it is determined that the opt-in application justifies opting the source into the NO<sub>x</sub> Budget Program, the Department shall notify the authorized account representative in writing of that determination.

c. The Department shall assign an allowance allocation to any owner or operator that has been approved by the Department to opt into the NO<sub>x</sub> Budget Program.

1. The allowance allocation for an opt-in source, that is not considered a budget source by definition, shall be equal to the more stringent of the opt-in-baseline control period emissions or the allowable NO<sub>x</sub> emissions from the source.

2. The allowance allocation for an opt-in source that has a maximum heat input rating of 250 MMBTU/hr shall be determined as follows:

i. For sources located in New Castle and Kent counties, *allowance allocations* shall be based on the more stringent of the following:

A. The less stringent of:

1. The *opt-in-baseline* actual mass emissions reduced by 65%; or,

2. The mass emissions resulting from the multiplication of the actual *opt-in-baseline* heat input by a NO<sub>x</sub> emissions rate of 0.20 lb/MMBTU.

B. If any permitted NO<sub>x</sub> emissions limit results in emissions that are lower than the less stringent of the limits calculated in Sections 8(c)(2)(i)(A)(1) and 8(c)(2)(i)(A)(2), then the permitted emissions limit shall be used to determine the emissions limitation for the NO<sub>x</sub> Budget Program.

ii. For sources located in Sussex county, *allowance allocations* shall be based on the more stringent of the following:

A. The less stringent of:

1. The *opt-in-baseline* actual mass emissions reduced by 55%; or,

2. The mass emissions resulting from the multiplication of the actual *opt-in-baseline* heat input by a NO<sub>x</sub> emissions rate of 0.20 lb/MMBTU.

B. If any permitted NO<sub>x</sub> emissions limit results in emissions that are lower than the less stringent of the limits calculated in Sections 8(c)(2)(ii)(A)(1) and 8(c)(2)(ii)(A)(2), then the permitted emissions limit shall be used to determine the emissions limitation for the NO<sub>x</sub> Budget Program.

3. If the *owner or operator* of an *opt-in* source is required to obtain NO<sub>x</sub> emissions offsets in accordance with Regulation 25 of the State of Delaware "Regulations Governing the Control of Air Pollution", the *allowance allocation* calculated under Section 8(c)(1) or (2) of this regulation shall be reduced by the portion of the *control period* emission reduction that is associated with any *budget source*.

4. The *allowance allocation* associated with the *opt-in* source shall be added to Delaware's NO<sub>x</sub> *budget* prior to *allocation* of *allowances* to the *opt-in* source. This regulation shall be revised to reflect changes in the number of *allowances* in the NO<sub>x</sub> Budget Program.

5. Under no circumstances shall the *allocation of allowances* to a source which chooses to *opt into* the program require adjustments to the *allocation of allowances to budget sources* in the NO<sub>x</sub> Budget Program.

d. Upon the approval of the *opt-in* application and assignment of an *allowance allocation*, the Department shall authorize the *NATS Administrator* to open a *compliance account* for the *opt-in* source in accordance with Section 10 of this regulation.

e. Within 30 days of approval to *opt into* the NO<sub>x</sub> Budget Program, any *owner or operator* shall apply for a permit, or the modification of applicable permits, in accordance with Section 5 of this regulation.

f. Upon approval of the *opt-in* application and establishment of the *compliance account*, the *owner or operator* of the source shall be subject to all applicable requirements of this regulation including the requirements for *allowance transfer* or deduction, emissions monitoring, record keeping, reporting, and penalties.

1. A certification test notice and test protocol shall be *submitted* to the Department no later than 90 days prior to anticipated performance of the certification testing.

2. Certification testing shall be completed prior to operation in the next NO<sub>x</sub> *control period* following approval of the source to *opt into* the NO<sub>x</sub> Budget Program.

3. A certification test report meeting the requirements of the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions" shall be *submitted* to the Department no later than 45 days following the performance of the certification testing.

g. Any *owner or operator* approved to *opt into* the NO<sub>x</sub> Budget Program that did not have two consecutive years of operation upon initial application and determined *opt-in-baseline* emissions in accordance with Section 8(a)(5)(i)(B) of this regulation shall submit to the Department a revised *opt-in* application.

1. The revised *opt-in* application shall be *submitted* no more than 60 days following first completion of operation in two consecutive NO<sub>x</sub> *control periods*.

2. The revised *opt-in* application shall provide actual operating information, including NO<sub>x</sub> mass emissions and *heat input*, for each of the two NO<sub>x</sub> *control periods*.

3. Within 60 days of receipt on any revised *opt-in* application, the Department shall review the revised *opt-in* application and take the following actions:

i. If the Department does not approve the revised *opt-in* application:

A. The Department shall notify the *opt-in source's authorized account representative* of the determination in writing and indicate the reason(s) for the determination.

B. The *opt-in source's authorized account representative* shall resolve the Department's comments and an updated revised *opt-in* application shall be submitted to the Department no more than 60 days from the Department's request.

C. Upon approval of any updated revised *opt-in* application, the Department shall process the application in accordance with Section 8(g)(3)(ii) of this regulation.

ii. If the Department is in concurrence with the

revised *opt-in* application, the following actions shall be taken:

A. The Department shall request the *OTC* Stationary/Area Source Committee to comment on the revised *opt-in* application. Within 30 days of receiving the *OTC* Stationary/Area Source Committee comments, the Department shall consider the comments and take action in accordance with Section 8(g)(3)(ii)(B) or Section 8(g)(3)(ii)(C) of this regulation.

B. If it is determined that the revised *opt-in* application shall not be approved:

1. The Department shall notify the *opt-in source's authorized account representative* of the determination in writing and indicate the reason(s) for the determination.

2. The *opt-in source's authorized account representative* or alternate *authorized account representative* shall resolve the Department's comments and an updated revised *opt-in* application shall be submitted to the Department no more than 60 days from the Department's request.

3. Upon approval of any updated revised *opt-in* application, the Department shall process the application in accordance with Section 8(g)(3)(ii)(C) of this regulation.

C. If it is determined that the revised *opt-in* shall be approved, the following actions shall be taken:

1. If the initial *allocation* was lower than that indicated in the revised application:

a. The Department shall revise the *NO<sub>x</sub> budget* to reflect the *allocation* determination identified in the revised *opt-in* application.

b. The Department shall authorize the *NATS Administrator* to revise the *allocation* to the subject source's *compliance account*.

c. The Department shall not authorize any additional allowances to cover any shortfall in the two *opt-in-baseline NO<sub>x</sub> control periods*. Any violation of a permit condition or of this regulation may result in an enforcement action.

2. If the initial *allocation* was higher than that indicated in the revised application:

a. The Department shall revise the *NO<sub>x</sub> budget* to reflect the *allocation* determination identified in the revised *opt-in* application.

b. The Department shall authorize the *NATS Administrator* to revise the *allocation* to the subject source's *compliance account*.

c. The Department shall authorize the *NATS Administrator* to deduct the excess *allowances allocated* to the *opt-in* source, calculated as the difference between the actual *allocated allowances* and the *allowances allocated* on the basis of the revised *opt-in* application for

the years of operation in *NO<sub>x</sub> control periods*.

h. Any *owner or operator* who chooses to *opt into* the *NO<sub>x</sub> Budget Program* can not opt-out of the program unless *NO<sub>x</sub> emitting operations* at the *opt-in* source have ceased, and the *allowance* adjustment provisions of Section 8(i) of this regulation apply.

i. Any *owner or operator* who chooses to *opt into* the *NO<sub>x</sub> Budget Program* and who subsequently chooses to cease or curtail operations during any *NO<sub>x</sub> allowance control period* after opting-in shall be subject to an *allowance* adjustment equivalent to the *NO<sub>x</sub> emissions decrease* that results from the shut down or curtailment.

1. The *NETS Administrator* shall compare actual *heat input* data following each *NO<sub>x</sub> control period* with the *opt-in-baseline heat input* for each *opt-in* source.

2. The *NATS Administrator* shall calculate and deduct *allowances* equivalent to any decrease in the *opt-in* source's *heat input* below its *opt-in-baseline heat input*. This deduction shall be calculated using the average of the two most recent years *heat input* compared to the *heat input* used in the *opt-in-baseline* calculation.

3. The *NATS Administrator* shall notify the *NO<sub>x</sub> budget source's authorized account representative* and the Department of any such deductions.

4. This adjustment affects only the *current year allocation* and shall not effect the *NO<sub>x</sub> budget source's allocations* for future years.

5. No deduction shall result from reducing *NO<sub>x</sub> emission rates* below the rate used in the *opt-in allowance* calculation.

6. A source that is to be repowered or replaced can be opted into the *NO<sub>x</sub> Budget Program* without the shutdown/curtailment deductions. The *heat input* for the repowered or replaced source can be substituted for the present year's activity for the *opt-in NO<sub>x</sub> allowance* adjustment calculation.

j. For replacement sources, all sources under common control in the State of Delaware to which production may be shifted shall be opted-in together.

k. When an *opt-in* source undergoes reconstruction or modification such that the source becomes a *budget source* by definition:

1. The *opt-in* source's *authorized account representative* or alternate *authorized account representative* shall notify the Department within 30 days of completion of the modification or reconstruction.

2. The Department shall authorize the *NATS Administrator* to deduct *allowances* equal to those allocated to the *opt-in* source in the *NO<sub>x</sub> control period* for the calendar year in which the *opt-in* source becomes a *budget source* by definition.

3. The Department shall authorize the *NATS*

*Administrator* to deduct all *allowances* that were allocated pursuant to Section 8(c) of this regulation to the *opt-in* source, for all future years following the calendar year in which the *opt-in* source becomes a *budget source* by definition. This regulation shall be revised to reflect changes in the number of allowances in the NO<sub>x</sub> Budget Program.

4. The reconstructed or modified source shall be treated as a *new budget source* in accordance with Section 9 of this Regulation.

#### Section 9 - New Budget Source Provisions

a. NO<sub>x</sub> *allowances* shall not be created for new NO<sub>x</sub> sources that are *budget sources* by definition. The *owner* or *operator* is responsible to acquire any required NO<sub>x</sub> *allowances* from the NATS.

b. The *owner* or *operator* of a *new budget source* shall establish a compliance account and be in compliance with all applicable requirements of this regulation prior to the commencement of operation in any NO<sub>x</sub> *control period*. *New budget sources* shall:

1. Request a permit/permit amendment meeting the requirements of Section 5 of this regulation no less than 90 days prior to operation in any NO<sub>x</sub> *control period*.

2. Submit a monitoring plan to the Department, in accordance with Section 13 of this regulation, no later than 90 days prior to the anticipated performance of monitoring system certification.

3. Install and operate an approved monitoring system(s) to measure, record, and report hourly and cumulative NO<sub>x</sub> mass emissions.

4. *Submit* to the Department a certification test notice and protocol no later than 90 days prior to the anticipated performance of the certification testing.

5. Complete the monitoring system certification prior to operation in any NO<sub>x</sub> *control period*.

6. *Submit* to the Department a certification test report meeting the requirements of the OTC document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions" no later than 45 days following the performance of the certification testing.

#### Section 10 - NO<sub>x</sub> Allowance Tracking System (NATS)

a. The NO<sub>x</sub> *allowance tracking system* is an electronic recordkeeping and reporting system which is the official database for all NO<sub>x</sub> *allowance* deduction and transfer within this program. The NATS shall track:

1. The *allowances* allocated to each *budget source*.

2. The *allowances* held in each *account*.

3. The *allowances* deducted from each *budget source* during each *control period*, as requested by a transfer request submitted by the *budget source's* *authorized account representative* or alternate *authorized account representative*

in accordance with Section 16(b) of this regulation.

4. *Compliance accounts* established for each *budget source* to determine the compliance for the source, including the following information:

i. The *account number* of the *compliance account*.

ii. The name(s), address(es), and telephone number(s) of the *account* owner (s).

iii. The name, address, and telephone number of the *authorized account representative* and alternate *authorized account representative*, as applicable.

iv. The name and street address of the associated *budget source*, and the state in which the *budget source* is located.

v. The number of *allowances* held in the *account*.

5. *General accounts* opened by individuals or entities, upon request, which are not used to determine compliance, including the following information:

i. The *account number* of the *general account*.

ii. The name(s), address(es) and telephone number(s) of the *account* owner(s).

iii. The name, address, and telephone number of the *authorized account representative* and alternate *authorized account representative*, as applicable.

iv. The number of *allowances* held in the *account*.

6. *Allowance transfers*.

7. Deductions of *allowances* by the NATS *Administrator* for compliance purposes, in accordance with Section 16(d) of this regulation.

b. The NATS *Administrator* shall establish *compliance* and *general accounts* when authorized to do so by the Department pursuant to Sections 6, 7, and 8 of this regulation.

c. Each *compliance account* and *general account* shall have a unique identification number and each *allowance* shall be assigned a unique serial number. Each *allowance* serial number shall indicate the year of *allocation*.

#### Section 11 - Allowance Transfer

a. *Allowances* may be transferred at any time during any year, not just the *current year*.

b. The transfer of *allowances* between *budget sources* in different states for purposes of compliance is contingent upon the adoption and implementation by those states of NO<sub>x</sub> *budget* program regulations and their participation in the NATS.

c. Transfer requests shall be *submitted* to the NATS *Administrator* on a form or electronic media, as directed by the NATS *Administrator*, and shall include the following information:

1. The *account number* of the originating *account* and the acquiring *account*.

2. The name(s) and address(s) of the owner(s) of the originating *account* and the acquiring *account*.

3. The serial number of each *allowance* being transferred.

4. The following statement from the *authorized account representative* or alternate *authorized account representative* of the originating *account*, in verbatim: “*I am authorized to make this submission on behalf of the owners or operators of the budget source and I hereby certify under penalty of law, that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment.*”

5. Signature of the *authorized account representative* or alternate *authorized account representative* of the originating *account* and the date of signature.

d. The *Authorized account representative* or alternate *authorized account representative* for the originating *account* shall further provide a copy of the transfer request to each *owner or operator* of the *budget source*.

e. Transfer requests shall be processed by the *NATS Administrator* in order of receipt.

f. A transfer request shall be determined to be valid by the *NATS Administrator* if:

1. Each *allowance* listed in the transfer request is held by the originating *account* at the time the transfer is to be recorded.

2. The acquiring party has an *account* in the *NATS*.

3. The transfer request has been certified by the person named as *authorized account representative* or alternate *authorized account representative* for the originating *account*.

g. Transfer requests judged valid by the *NATS Administrator* shall be completed and recorded in the *NATS* by deducting the specified *allowances* from the originating *account* and adding them to the acquiring *account*.

h. Transfer requests judged to be invalid by the *NATS Administrator* shall be returned to the *authorized account representative* indicated on the transfer request along with documentation why the transfer request was judged to be invalid.

i. The *NATS Administrator* shall provide notification of an *allowance* transfer to the *authorized account representatives* of the originating *account*, the *authorized account representative* of the acquiring *account*, and the Department, including the following information:

1. The effective date of transfer.

2. Identification of the originating *account* and acquiring *account* by name as well as by *account number*.

3. The number of *allowances* transferred and their

serial numbers.

j. The *authorized account representative* or alternate *authorized account representative* of a *compliance account* or a *general account* may request that some or all allocated *allowances* be transferred to another *compliance account* or to a *general account* for the current year, any future year, block of years, or for the duration of the program. The *authorized account representative* or alternate *authorized account representative* of the originating *account* shall submit a request for transfer that states this intent to the *NATS Administrator*, and the transfer request shall conform to the requirements of this Section. In addition, the request for transfer shall be submitted to the Department with a letter requesting that the *budget* be revised to reflect the change in *allowance* allocations.

k. Upon request by the Department any *authorized account representative* or alternate *authorized account representative* shall make available to the Department information regarding transaction cost and *allowance* price.

#### Section 12 - Allowance Banking

a. The *banking* of *allowances* is permitted to allow retention of unused *allowances* from one year to a future year in either a *compliance account* or a *general account*.

b. Except for *allowances* created under Section 12(d) of this regulation, *allowances* not used under Section 16 of this regulation shall be held in a *compliance account* or *general account* and designated as “*banked*” *allowances* by the *NATS Administrator*.

c. The use of *banked allowances* shall be restricted as follows:

1. By March 1 of each year the *NATS Administrator* shall divide the total number of *banked allowances* by the regional  $\text{NO}_x$  *budget*.

i. If the total number of *banked allowances* in the *NATS* is less than or equal to 10% of the regional  $\text{NO}_x$  *budget* for the *current year control period*, all *banked allowances* can be deducted in the *current year* on a 1-for-1 basis.

ii. If the total number of *banked allowances* in the *NATS* exceeds 10% of the regional  $\text{NO}_x$  *budget* for the *current year control period*, *budget sources* shall be notified by the *NATS Administrator* of the *allowance* ratio which must be applied to *banked allowance* in each *compliance account* and *general account* to determine the number of *allowances* available for deduction in the *current year control period* on a 1-for-1 basis and the number of *allowances* available for deduction on a 2-for-1 basis.

2. Where a finding has been made by the *NATS Administrator* that *banked allowances* exceed 10% of the *current year regional NO<sub>x</sub> budget*, each *NATS compliance account* and *general account* of *banked allowances* shall be subject to the following *banked allowance* deduction

protocol:

i. A ratio shall be established according to the following formula:

$$\frac{0.10 \times \text{the regional NO}_x \text{ Budget}}{\text{the total number of banked allowances in the region}}$$

the total number of *banked allowances* in the region

ii. The ratio calculated in Section 12(c)(2)(i) of this regulation shall be applied to the *banked allowances* in each *account*. The resulting number is the number of *banked allowances* in the *account* which can be used in the *current year control period* on a 1-for-1 basis. *Banked allowances* in excess of this number, if used, shall be used on a 2-for-1 basis.

d. The *owner or operator* of an *existing budget source* may apply to the Department to receive *early reduction allowances* for actual NO<sub>x</sub> reductions occurring in 1997 and/or 1998.

1. No later than the effective date of this regulation, the *authorized account representative* or alternate *authorized account representative* from any *budget source* seeking *early reduction allowances* shall submit to the Department an application that includes, at a minimum, the following information:

i. Identification of the *budget source*.

ii. Identification of the calendar time period for which *early reduction allowances* are being sought (i.e., May 1 - September 30, 1997, May 1 - September 30, 1998, or both).

iii. Identification of the *baseline NO<sub>x</sub> control period* emission limit (tons), which shall be the more stringent of the following:

A. The level of control required by the *OTC MOU*;

B. The lower of the permitted allowable emissions for the source and the allowable emissions identified in the state implementation plan (SIP);

C. The actual emissions for the 1990 *control period*, or;

D. The actual emissions for the average of two representative year *control periods* within the first five years of operation if the *budget source* did not commence operation until after 1990.

iv. The *baseline NO<sub>x</sub> control period heat input* (MMBTU) corresponding to the *baseline NO<sub>x</sub> control period* emission limit (tons) determined in Section 12(d)(1)(iii) of this regulation.

v. The actual NO<sub>x</sub> *control period* NO<sub>x</sub> emissions (tons) occurring in 1997 and/or 1998, as applicable.

vi. The actual NO<sub>x</sub> *control period heat input* (MMBTU) occurring in 1997 and/or 1998, as applicable.

vii. The calculated NO<sub>x</sub> *control period* emissions rate (lb/MMBTU), as determined using the

*control period* NO<sub>x</sub> emissions identified in Section 12(d)(1)(v) of this regulation multiplied by 2000 to obtain actual emissions in pounds (lbs), divided by the *control period heat input* (MMBTU) identified in Section 12(d)(1)(vi) of this regulation.

viii. The amount of NO<sub>x</sub> emissions *early reduction allowances* shall be calculated by subtracting the actual *control period* NO<sub>x</sub> emissions (in tons), identified in Section 12(d)(1)(v) of this regulation, from the *baseline* NO<sub>x</sub> emissions limit (in tons) identified in Section 12(d)(1)(iii) of this regulation.

ix. If the actual *control period heat input*, as identified in Section 12(d)(1)(vi) of this regulation, is less than the *baseline NO<sub>x</sub> control period heat input*, as identified in Section 12(d)(1)(iv) of this regulation, the NO<sub>x</sub> emissions *early reduction allowances* determined in Section 12(d)(1)(viii) of this regulation shall be corrected as follows:

A. The actual *control period heat input* (MMBTU), as identified in Section 12(d)(1)(vi) of this regulation, shall be subtracted from the *baseline NO<sub>x</sub> control period heat input* (MMBTU), as identified in Section 12(d)(1)(iv) of this regulation, to obtain the *heat input* correction.

B. The *heat input* correction (MMBTU) is multiplied by the calculated NO<sub>x</sub> *control period* emissions rate (lb/MMBTU) determined in Section 12(d)(1)(vii) of this regulation. The resulting value is divided by 2000 to obtain tons of NO<sub>x</sub>.

C. The corrected NO<sub>x</sub> emissions *early reduction allowance* is the result of subtracting the results of Section 12(d)(1)(ix)(B) of this regulation from the NO<sub>x</sub> emissions *early reduction allowances* calculated in Section 12(d)(1)(viii) of this regulation.

x. A statement indicating the *budget source* was operating in accordance with all applicable requirements during the applicable NO<sub>x</sub> *control period* including:

A. Whether the monitoring plan that was *submitted* in accordance with Section 13 of this regulation was maintained to reflect the actual operation and monitoring of the unit and contains all information necessary to attribute monitored emissions to the *budget source*. If *early reduction allowances* are being sought for a *control period* prior to the implementation of monitoring in accordance with Section 13(a) of this regulation, a monitoring plan prepared in accordance with Section 13(a) of this regulation shall be *submitted* describing the monitoring method in use during the *control period* for which *early reduction allowances* are being sought.

B. Whether all the emissions from the *budget source* were monitored, or accounted for, throughout the NO<sub>x</sub> *control period* and reported.

C. Whether the information that formed

the basis for certification of the emissions monitoring plan has changed affecting the certification of the monitoring.

D. If a change in the monitoring method is reported under Section 12(d)(1)(x)(C) of this regulation, specify the nature of the change, the reason for the change, when the change occurred, and what method was used to determine emissions during the period mandated by the change.

xi. A statement documenting the specific physical changes to the *budget source* or changes in the methods of operating the *budget source* which resulted in the reduction of emissions.

xii. The following statement: “*I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.*”

xiii. Signature of the *authorized account representative* or alternate *authorized account representative* and date of signature.

2. *Early reduction allowance* requests shall be reviewed by the Department.

i. If the Department determines that the emissions reductions were not enforceable, *real*, *quantifiable*, or *surplus*, the Department shall notify the *budget source's authorized account representative* in writing, indicating the reason(s) the request for *early reduction allowances* is being denied.

ii. If the Department determines that the emissions reductions are enforceable, *real*, *quantifiable*, and *surplus*:

A. The Department shall request the *OTC Stationary/Area Source Committee* to comment on the generation of potential *early reduction allowances*.

B. The Department shall consider the *OTC Stationary/Area Source Committee* comments and either:

1. Notify the *budget source's authorized account representative* in writing denying the request for *early reduction allowances* and indicate the reason(s) for the determination; or

2. Notify the *budget source's authorized account representative* in writing that the requested emissions reduction *allowances* shall be added to the *budget source's account*; and

3. Authorize the *NATS Administrator* to add the *allowances* to the *budget source's account* as 1999 *allowances*.

3. Reductions associated with *repowering* of a

*budget source* are eligible for *early reduction credit* provided that the permit for construction of the replacement source was issued after the date of the *OTC MOU* (September 27, 1994), and the *budget source* being replaced ceases operation in 1997 or 1998.

4. No later than October 1, 1999, the Department shall publish a report which documents the applicable sources and the number of *early reduction credits* awarded.

Section 13 - Emission Monitoring

a.  $NO_x$  emissions from each *budget source* shall be monitored in accordance with this section and in accordance with the requirements of the *OTC* documents titled “Guidance for Implementation of Emissions Monitoring Requirements for the  $NO_x$  Budget Program”, dated January 28, 1997, and “ $NO_x$  Budget Program Monitoring Certification and Reporting Instructions”, dated July 3, 1997. The provisions of these documents are hereby adopted by reference.

b. Monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing, and quality assurance/quality control testing as specified in the *OTC* document titled “Guidance for Implementation of Emissions Monitoring Requirements for the  $NO_x$  Budget Program”. If an *owner or operator* uses certified monitoring systems under Part 75 to meet the requirements of this program and maintains and operates those monitoring systems according to the requirements of Part 75, it is not necessary to re-perform initial certification tests to ensure the accuracy of these components under the  $NO_x$  Budget Program.

c. During a period when valid data is not being recorded by devices approved for use to demonstrate compliance with the requirements of this section, the *owner or operator* shall provide substitute data in accordance with the requirements of:

1. For *Part 75 budget sources*, the procedures of 40 CFR Part 75, Subpart D, and Part 1 of the *OTC* document titled “Guidance for Implementation of Emissions Monitoring Requirements for the  $NO_x$  Budget Program”.

2. For *non-Part 75 budget sources*, the procedures of Part 2 of the *OTC* document “Guidance for Implementation of Emission Monitoring Requirements for the  $NO_x$  Budget Program” except for those provisions in this document that allow alternative methods or procedures. Any alternative methods or procedures must be reviewed and approved by the Department and EPA.

d. The *owner or operator* of a  $NO_x$  *budget source* shall meet the following emissions monitoring deadlines:

1. All existing *Part 75*  $NO_x$  *budget sources* not required by the  $NO_x$  Budget Program to install additional monitoring equipment, or required to only make software changes to implement the additional requirements of this

program, shall meet the monitoring requirements of the NO<sub>x</sub> Budget Program as follows:

i. By meeting all current Part 75 monitoring requirements during the NO<sub>x</sub> *control period* during each calendar year.

ii. By monitoring hourly and cumulative NO<sub>x</sub> mass emissions for the NO<sub>x</sub> *control period* in each calendar year starting in 1999 in accordance with the *OTC* documents "Guidance for Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

2. All existing *Part 75 budget sources* required to install and certify new monitoring systems to meet the requirements of the NO<sub>x</sub> Budget Program shall meet the monitoring requirements of this program as follows:

i. By meeting all current Part 75 monitoring requirements during the NO<sub>x</sub> *control period* during each calendar year.

ii. Reserved

iii. By monitoring hourly and cumulative NO<sub>x</sub> mass emissions using certified monitoring systems for each NO<sub>x</sub> *control period* each calendar year starting in 1999 in accordance with the *OTC* documents "Guidance for Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

3. All existing *non-Part 75 budget sources* shall meet the monitoring requirements of the NO<sub>x</sub> Budget Program as follows:

i. Reserved

ii. By monitoring hourly and cumulative NO<sub>x</sub> mass emissions using certified monitoring systems for each NO<sub>x</sub> *control period* of each calendar year starting in 1999 in accordance with the *OTC* documents "Guidance for Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

e. The *owner or operator* of a *budget source* subject to 40 CFR Part 75 shall demonstrate compliance with this section with a certified Part 75 monitoring system.

1. The *authorized account representative* or alternate *authorized account representative* shall submit to the Department a monitoring plan prepared in accordance with 40 CFR Part 75 and the additional requirements of the *OTC* document "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

i. All existing *Part 75 budget sources* not required to install additional monitoring equipment shall

submit to the Department a complete hardcopy monitoring plan containing monitoring plan changes and additions required by the NO<sub>x</sub> Budget Program no later than the effective date of this regulation. These *Part 75 budget sources* shall also submit to the Department a complete electronic monitoring plan upon request by the Department.

ii. For any *Part 75 budget source* required to install and certify new monitoring systems, submit to the Department a complete hardcopy monitoring plan acceptable to the Department at least 45 days prior to the initiation of certification tests for the new system(s). These *Part 75 budget sources* shall also submit to the Department a complete electronic monitoring plan upon request by the Department.

iii. For *new budget sources* under 40 CFR Part 75, submit to the Department the NO<sub>x</sub> Budget Program information with the hardcopy Acid Rain Program monitoring plan no later than 90 days prior to the projected Acid Rain Program participation date. These new *Part 75 budget sources* shall also submit to the Department a complete electronic monitoring plan upon request by the Department.

2. The *authorized account representative* or alternate *authorized account representative* shall obtain certification of the NO<sub>x</sub> emissions monitoring system in accordance with 40 CFR Part 75 and the additional requirements of the *OTC* document "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

i. If the *Part 75 budget source* uses certified monitoring systems under Part 75 to meet the requirements of the NO<sub>x</sub> Budget Program and maintains and operates those monitoring systems according to the requirements of Part 75, it is not necessary to re-perform initial certification tests to ensure the accuracy of the monitoring systems under the NO<sub>x</sub> Budget Program.

A. Formula verifications must be performed to demonstrate that the data acquisition system accurately calculates and reports NO<sub>x</sub> mass emissions (lb/hr) based on hourly *heat input* (MMBTU/hr) and NO<sub>x</sub> emission rate (lb/MMBTU).

B. Formula verifications shall be *submitted* to the Department no later than the effective date of this regulation.

ii. If it is necessary for the *owner or operator* of a *Part 75 budget source* to install and operate additional NO<sub>x</sub> or flow systems or fuel flow systems because of stack and unit configuration, the *owner or operator* must certify the monitoring systems using the procedures of 40 CFR Part 75.

A. Successful certification testing of the monitoring system in accordance with the requirements of 40 CFR Part 75 shall be completed no later than April 30, 1999.

B. A certification test notice and protocol shall be *submitted* to the Department for approval no later than 90 days prior to the anticipated performance of the certification testing.

C. A certification report meeting the requirements of the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions" shall be *submitted* to the Department no later than 45 days following the performance of the certification testing.

3. If the *Part 75 budget source* has a flow monitor certified under Part 75, NO<sub>x</sub> emissions in pounds per hour shall be determined using the Part 75 NO<sub>x</sub> *CEMS* and the flow monitor. The NO<sub>x</sub> emission rate in pounds per million BTU shall be determined using the procedure in 40 CFR Part 75, Appendix F, Section 3. The hourly *heat input* shall be determined by using the procedures in 40 CFR Part 75, Appendix F, Section 5. The NO<sub>x</sub> emissions in pounds per hour shall be determined by multiplying the NO<sub>x</sub> emissions rate (in pounds per million BTU) by the *heat input* rate (in million BTU per hour).

4. If the *Part 75 budget source* does not have a certified flow monitor, but does have a certified NO<sub>x</sub> *CEMS*, the NO<sub>x</sub> emissions rate in pounds per hour shall be determined by using the NO<sub>x</sub> *CEMS* to determine the NO<sub>x</sub> emission rate in pounds per million BTU and the *heat input* shall be determined by using the procedures in 40 CFR Part 75, Appendix D. The NO<sub>x</sub> emissions rate (in pounds per hour) shall be determined by multiplying the NO<sub>x</sub> emissions rate (in pounds per million BTU) by the *heat input* rate (in million BTU per hour).

5. If the *Part 75 budget source* uses the procedures in 40 CFR Part 75, Appendix E, to determine the NO<sub>x</sub> emission rate, the NO<sub>x</sub> emissions in pounds per hour shall be determined by multiplying the NO<sub>x</sub> emissions rate (in pounds per million BTU) determined using the Appendix E procedures times the *heat input* (in million BTU per hour) determined using the procedures in 40 CFR Part 75, Appendix D.

6. If the *Part 75 budget source* uses the procedures in 40 CFR Part 75, Subpart E, to determine NO<sub>x</sub> emission rate, the NO<sub>x</sub> emissions in pounds per hour shall be determined using the alternative monitoring method approved under 40 CFR Part 75, Subpart E, and the procedures contained in the *OTC* document titled "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

7. The relevant procedures of the *OTC* document

"Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" shall be employed for unusual or complicated stack configurations.

f. The *owner or operator* of a *budget source* not subject to 40 CFR Part 75 shall seek the use of a NO<sub>x</sub> monitoring method to comply with this regulation as follows:

1. The *authorized account representative* or alternate *authorized account representative* shall prepare and submit to the Department for approval a hardcopy monitoring plan for each NO<sub>x</sub> *budget source*. Upon request by the Department, the *authorized account representative* or alternate *authorized account representative* shall also submit to the Department a complete electronic monitoring plan. Sources subject to the program on the effective date of this regulation shall submit the complete monitoring plan no later than the effective date of this regulation. Sources becoming subject to the *budget* program after the effective date of this regulation must submit a complete monitoring plan no later than 90 days prior to projected initial participation date. The monitoring plan shall be prepared in accordance with the requirements of the *OTC* documents "Guidance for the Implementation of the Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring and Certification and Reporting Instructions", and shall contain the following information, as a minimum:

i. A description of the monitoring method to be used.

ii. A description of the major components of the monitoring system including the manufacturer, serial number of the component, the measurement span of the component and documentation to demonstrate that the measurement span of each component is appropriate to measure all of the expected values. This requirement applies to all monitoring systems including NO<sub>x</sub> *CEMS* which have not been certified pursuant to 40 CFR Part 75.

iii. An estimate of the accuracy of the system and documentation to demonstrate how the estimate of accuracy was determined. This requirement applies to all monitoring systems that are not installed/being installed in accordance with the requirements of 40 CFR Part 75.

iv. A description of the tests that will be used for initial certification, initial quality assurance, periodic quality assurance, and relative accuracy.

v. If the monitoring method of determining *heat input* involves *boiler* efficiency testing, a description of the tests to determine *boiler* efficiency.

vi. If the monitoring method uses fuel sampling, a description of the test to be used in the fuel sampling program.

vii. If the monitoring method utilizes a generic default emission rate factor, the monitoring plan shall identify the generic default emission rate factor and provide documentation of the applicability of the generic default

emission rate factor to the *non-Part 75 budget source*.

viii. If the monitoring method utilizes a unit specific default emission rate factor the monitoring plan shall include the following:

A. All necessary information to support the emission rate including:

1. Historical fuel use data and historical emissions test data if previous testing has been performed prior to May 1, 1997 to meet other state or federal requirements and the testing was performed using Department approved methods and protocols; or

2. If emissions testing is performed to determine the emission rate, include a test protocol explaining the test to be conducted. All test performed on or after May 1, 1997 must meet the requirements of 40 CFR Part 75, Appendix E, and the requirements of the *OTC* document "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

B. Procedures which will be utilized to demonstrate that any control equipment in operation during the testing to develop source specific emission factors, or during development of load-based emission curves, are in use when those emission factors are applied to estimate NO<sub>x</sub> emissions.

C. Alternative uncontrolled emission rates to be used to estimate NO<sub>x</sub> emissions during periods when control equipment is not being used or is inoperable.

ix. If the monitoring method utilizes fuel flow meters to determine *heat input* and said meters have not been certified pursuant to 40 CFR Part 75, the monitoring plan shall include a description of all components of the fuel flow meter, the estimated accuracy of the fuel flow meter, the most recent calibration of each of the components and the original accuracy specifications from the manufacturer of the fuel flow meter.

x. The *submitted* complete monitoring plan shall meet all of the provisions of Part 2, Section II of the *OTC* document "Guidance for the Implementation of the Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

2. The *authorized account representative* or alternate *authorized account representative* shall obtain certification of the NO<sub>x</sub> emissions monitoring system in accordance with the requirements of the *OTC* documents "Guidance for the Implementation of the Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

i. The certification testing shall be successfully completed no later than April 30, 1999.

ii. A certification test notice and protocol shall

be *submitted* to the Department no later than 90 days prior to the anticipated performance of the certification testing.

iii. A certification report meeting the requirements of the *OTC* document "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions" shall be *submitted* to the Department no later than 45 days following the performance of the certification testing.

3. The *owner or operator* of a *non-Part 75 budget source* shall monitor NO<sub>x</sub> emissions in accordance with one of the following requirements:

i. Any *non-Part 75 budget source* that has a maximum rated *heat input* capacity of 250 MMBTU/hr or greater which is not a peaking unit as defined in 40 CFR 72.2, or whose operating permit allows for the combustion of any solid fossil fuel, or is required to install a NO<sub>x</sub> *CEMS* for the purposes of meeting either the requirements of 40 CFR Part 60 or any other Department or Federal requirement, shall install, certify, and operate a NO<sub>x</sub> *CEMS*. Any *budget source* that has previously installed a NO<sub>x</sub> *CEMS* for the purposes of meeting either the requirements of 40 CFR Part 60 or any other Department or Federal requirement shall certify and operate the NO<sub>x</sub> *CEMS*.

A. The NO<sub>x</sub> *CEMS* shall be used to measure stack gas NO<sub>x</sub> concentration and the NO<sub>x</sub> emissions rate in lb/MMBTU calculated in accordance with the procedures in 40 CFR Part 75, Appendix F.

B. Any *non-Part 75 budget source* utilizing a NO<sub>x</sub> *CEMS* shall meet the following requirements from the *OTC* document "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program":

1. Initial certification requirements identified in Part 2, Section III.

2. Quality assurance requirements identified in Part 2, Section IV.

3. Re-certification requirements identified in Part 2, Section V.

ii. The *owner or operator* of a *non-Part 75 budget source* not required to install a NO<sub>x</sub> *CEMS* in accordance with Section 13(f)(3)(i) of this regulation may elect to install a NO<sub>x</sub> *CEMS* meeting the requirements of 40 CFR Part 75 or Section 13(f)(3)(i) of this regulation.

iii. The *owner or operator* of a *non-Part 75 budget source* that is not required to have a NO<sub>x</sub> *CEMS* may request approval from the Department to use any of the following methodologies to determine the NO<sub>x</sub> emission rate:

A. The *owner or operator* of a *non-Part 75 budget source* may request the use of an alternative monitoring methodology meeting the requirements of 40 CFR Part 75, Subpart E. The Department must approve the use of an *alternative monitoring system* before such system

is operated to meet the requirements of the NO<sub>x</sub> Budget Program. If the methodology must be incorporated into a permit pursuant to Regulation 30 of Delaware's "Regulations Governing the Control of Air Pollution", the methodology must also be approved by the EPA.

B. The *owner or operator* of a boiler or combustion turbine *non-Part 75 budget source* may request the use of the procedures contained in 40 CFR Part 75, Appendix E, to measure the NO<sub>x</sub> emission rate, in lb/MMBTU, consistent with the requirements identified in Part 2 of the *OTC* document "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

C. The *owner or operator* of a combustion turbine *non-Part 75 budget source* may request the use of default emission factors to determine NO<sub>x</sub> emissions, in pounds per MMBTU, as follows:

1. For oil-fired combustion turbines, the generic default emission factor is 1.2 pounds of NO<sub>x</sub> per MMBTU.

2. For gas-fired combustion turbines, the generic default emission factor is 0.7 pound of NO<sub>x</sub> per MMBTU.

3. The *owner or operator* of oil-fired and gas-fired combustion turbines may perform testing, in accordance with Department approved methods, to determine unit specific maximum potential NO<sub>x</sub> emission rates in accordance with the requirements of Part 2 of the *OTC* document "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program."

D. The *owner or operator* of a boiler *non-Part 75 budget source* may request the use of default emission factors to determine NO<sub>x</sub> emissions, in pound per MMBTU, as follows:

1. For oil-fired *boilers*, the generic default emission factor is 2.0 pounds of NO<sub>x</sub> per MMBTU.

2. For gas-fired *boilers*, the generic default emission factor is 1.5 pound of NO<sub>x</sub> per MMBTU.

3. The *owner or operator* of oil-fired and gas-fired *boilers* may perform testing, in accordance with Department approved methods, to determine unit specific maximum potential NO<sub>x</sub> emission rates in accordance with the requirements of the *OTC* document "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

4. The *owner or operator* of a *non-Part 75 budget source* may determine *heat input* in accordance with the following guidelines:

i. The *owner or operator* of a *non-Part 75 budget source* using a NO<sub>x</sub> *CEMS* to measure NO<sub>x</sub> emission rate may elect to measure stack flow and diluent ( O<sub>2</sub> or

CO<sub>2</sub>) concentration and use the procedures of 40 CFR Part 75, Appendix F, to determine the hourly *heat input*. For flow monitoring systems, the *non-Part 75 budget source* must meet all applicable requirements of 40 CFR Part 75.

ii. The *owner or operator* of a *non-Part 75 budget source* combusting only oil and/or natural gas may determine hourly *heat input* rate by monitoring fuel flow and conducting fuel sampling.

A. The *owner or operator* of a *non-Part 75 budget source* may monitor fuel flow by using fuel flow meter systems certified under 40 CFR Part 75, Appendix D, or as defined in Part 2, Section III of the *OTC* document "Guidance for Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program".

B. The *owner or operator* of a *non-Part 75 budget source* combusting oil may perform oil sampling and testing in accordance with the requirements of 40 CFR Part 75 or Part 2, Section I(C)(2) of the *OTC* document "Guidance for the Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program".

C. The *owner or operator* of a *non-Part 75 budget source* combusting gas must determine the heating value of the gas in accordance with the requirements of 40 CFR Part 75 or the methodologies approved in Part 2, Section I(C)(2) of the *OTC* document "Guidance for the Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program".

iii. The *owner or operator* of a *non-Part 75 budget source* electrical generating unit less than 25 megawatts rated capacity that combusts only oil or gas may petition the Department to determine *heat input* by measuring fuel used on a frequency of greater than one hour but no less than weekly.

A. The fuel usage must be reported on an hourly basis by apportioning the fuel based on electrical load in accordance with the following formula:

$$\text{Hourly fuel usage} = \frac{\text{Hourly electrical load} \times \text{total fuel usage}}{\text{Total electrical load}}$$

B. The *owner or operator* of a *non-Part 75 budget source* combusting oil may perform oil sampling and testing in accordance with the requirements of 40 CFR Part 75 or Part 2, Section I(C)(2) of the *OTC* document "Guidance for the Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program".

C. The *owner or operator* of a *non-Part 75 budget source* combusting gas must determine the heating value of the gas in accordance with the requirements of 40 CFR Part 75 or the methodologies approved in Part 2, Section I(C)(2) of the *OTC* document "Guidance for the Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program".

iv. The *owner or operator* of a *non-Part 75 budget source* that combusts only oil and/or gas and has elected to use a unit-specific or generic default NO<sub>x</sub> emission rate, may petition the Department to determine hourly *heat input* based on fuel use measurements for a specified period that is longer than one hour.

A. The petition must include a description of the periodic measurement methodology, including an assessment of its accuracy.

B. Each time period must begin on or after May 1 and conclude on or before September 30 of each calendar year.

C. To determine hourly input, the *owner or operator* shall apportion the long term fuel measurements to operating hours during the *control period*.

D. Fuel sampling and analysis must conform to the requirements of Part 2, Section I(C)(2) of the *OTC* document "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

v. The *owner or operator* of a *non-Part 75 budget source* that combusts any fuel other than oil or natural gas may petition the Department to use an alternative method of determining *heat input*, including:

A. Conducting fuel sampling and analysis and monitoring fuel usage.

B. Using *boiler* efficiency curves and other monitored information such as *boiler* steam output.

C. Any other method approved by the Department and which meets the requirements identified in Part 2, Section I, of the *OTC* document "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program".

vi. The *owner or operator* of a *non-Part 75 budget source* may petition the Department to use a unit-specific maximum hourly *heat input* based on the higher of the manufacturer's rated capacity or the highest observed hourly *heat input* in the period beginning five years prior to the program participation date. The Department may approve a lower maximum *heat input* if an *owner or operator* demonstrates that the highest observed hourly *heat input* in the last five years is not representative of the unit's current capabilities because modifications have been made limiting its capacity permanently.

vii. Methods used for determination of *heat input* are subject to both applicable initial and periodic relative accuracy and quality assurance testing requirements in accordance with the following provisions of the *OTC* document "Guidance for Implementation of Emissions Monitoring Requirements for the NO<sub>x</sub> Budget Program":

A. Initial certification requirements identified in Part 2, Section III.

B. Quality assurance requirements identified in Part 2, Section IV.

C. Re-certification requirements identified in Part 2, Section V.

5. Once the NO<sub>x</sub> emission rate in pounds per million BTU has been determined in accordance with Section 13(f)(3) of this regulation and the *heat input* rate in MMBTU per hour has been determined in accordance with Section 13(f)(4) of this regulation, the two values shall be multiplied together to result in NO<sub>x</sub> emissions in pounds per hour and reported to the *NETS* in accordance with Section 15 of this regulation.

6. The relevant procedures of the *OTC* document "Guidance for Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" shall be employed for unusual or complicated stack configurations.

#### Section 14 - Recordkeeping

The *owner or operator* of any *budget source* shall maintain, for a period of at least five years, copies of all measurements, tests, reports, data, and other information required by this regulation.

#### Section 15 - Emissions Reporting

a. The *Authorized account representative* or alternate *authorized account representative* for each *budget source* shall submit to the *NETS Administrator*, electronically in a format which meets the requirements of the EPA's Electronic Data Reporting (EDR) convention, emissions and operating information in accordance with the *OTC* documents "Guidance for the Implementation of Emission Monitoring Requirements for the NO<sub>x</sub> Budget Program" and "NO<sub>x</sub> Budget Program Monitoring Certification and Reporting Instructions".

1. All *existing Part 75 budget sources* not required to install additional monitoring equipment shall meet the reporting requirements of the NO<sub>x</sub> Budget Program as follows:

i. By meeting all current Part 75 reporting requirements and reporting the additional unit identification information as required by the NO<sub>x</sub> Budget Program (100 and 500 level records) beginning no later than with the submittal of the quarterly report for the second calendar quarter of 1999.

ii. Reserved

iii. Beginning with the quarterly report for the second quarter of 1999, report all Part 75 required information and all additional information required by the NO<sub>x</sub> Budget Program including:

A. Additional unit identification information.

B. Hourly NO<sub>x</sub> mass emissions in pounds per hour based on reported hourly *heat input* and hourly NO<sub>x</sub> emission rate.

C. Cumulative NO<sub>x</sub> *control period* NO<sub>x</sub>

mass emissions in tons per NO<sub>x</sub> *control period*.

D. Additional monitoring plan information related to the NO<sub>x</sub> Budget Program.

E. Certification status information as required by the NO<sub>x</sub> Budget Program.

2. Beginning no later than with the quarterly report for the second quarter of 1999 all *Part 75 budget sources*, that are required to install and certify new monitoring systems to meet the requirements of the NO<sub>x</sub> Budget Program, shall meet the reporting requirements of the NO<sub>x</sub> Budget Program by meeting all current Part 75 reporting requirements and the additional reporting requirements of the NO<sub>x</sub> Budget Program including *submittal* of the following information:

i. Additional unit identification information.

ii. Hourly NO<sub>x</sub> mass emissions in pounds per hour based on reported hourly *heat input* and hourly NO<sub>x</sub> emission rate.

iii. Cumulative NO<sub>x</sub> *control period* NO<sub>x</sub> mass emissions in tons per NO<sub>x</sub> *control period*.

iv. Additional monitoring plan information related to the NO<sub>x</sub> Budget Program.

v. Certification status information as required by the NO<sub>x</sub> Budget Program.

3. All *non-Part 75 budget sources* shall meet the reporting requirements of the NO<sub>x</sub> Budget Program by reporting all information required by the NO<sub>x</sub> Budget Program as well as reporting hourly and cumulative NO<sub>x</sub> mass emissions beginning no later than with the quarterly report for the second quarter of 1999.

b. The *authorized account representative* or alternate *authorized account representative* of a *budget source* subject to 40 CFR Part 75 shall submit NO<sub>x</sub> Budget Program quarterly data to the U.S. EPA as part of the quarterly reports *submitted* for the compliance with 40 CFR Part 75.

c. The *authorized account representative* or alternate *authorized account representative* of a *budget source* not subject to 40 CFR Part 75 shall submit NO<sub>x</sub> budget program quarterly data to the U.S. EPA as follows:

1. For *non-Part 75 budget sources* not utilizing NO<sub>x</sub> *CEMS*, submit two quarterly reports each year, one for the second quarter and one for the third quarter.

2. For *non-Part 75 budget sources* using any NO<sub>x</sub> *CEMS* based measurement methodology, submit a complete quarterly report for each quarter in the year.

3. The submission deadline is thirty days after the end of the calendar quarter. If the thirtieth day falls on a weekend or federal holiday, the reporting deadline is midnight of the first day following the holiday or weekend.

d. Should a *budget source* be permanently shutdown, the *authorized account representative* or alternate *authorized*

*account representative* may submit a written request the Department for an exemption from the requirements of Sections 13 and 14 of this regulation. The shutdown exemption request shall identify the *budget source* being shutdown and the date of permanent shutdown. Within 30 days of receipt of the shutdown exemption request, the Department shall:

1. If the Department does not approve the shutdown exemption request, the *authorized account representative* shall be notified in writing, including the reason(s) for not approving the request.

2. If the Department approves the shutdown exemption request:

i. The *authorized account representative* shall be notified in writing.

ii. The Department shall notify the *NETS Administrator* of the approved shutdown request.

#### Section 16 - End-of Season Reconciliation

a. *Allowances* may be used for compliance with this program in a designated compliance year by being in a *compliance account* as of December 31 of the subject year, or by being identified in an *allowance transfer* request that is *submitted* by December 31 of the subject year.

b. Each year during the period November 1 through December 31, inclusive, the *authorized account representative* or alternate *authorized account representative* shall request the *NATS Administrator* to deduct *current year allowances* from the *compliance account* equivalent to the NO<sub>x</sub> emissions from the *budget source* in the most recent *control period*. This request shall be *submitted* by the *authorized account representative* or alternate *authorized account representative* to the *NATS Administrator* by not later than December 31. This request shall identify the *compliance account* of the *budget source* and the serial number of each of the *allowances* to be deducted.

1. *Allowances* allocated for the current NO<sub>x</sub> *control period* may be used without restriction.

2. *Allowances* allocated for future NO<sub>x</sub> *control periods* may not be used.

3. *Allowances* which were allocated for any preceding NO<sub>x</sub> *control period* which were banked may be used in the current *control period*. *Banked allowance* shall be deducted against NO<sub>x</sub> emissions in accordance with the ratio of NO<sub>x</sub> *allowances* to emissions as specified in Section 12 of this regulation.

c. If the emissions from a *budget source* in the current *control period* exceed the *allowances* held in that *budget source's compliance account* for that *control period*:

1. The *budget source* shall obtain additional *allowances* by December 31 of the subject year so that the total number of *allowances* in the *compliance account* meeting the criteria of Section 16(b)(1) through (3) of this

regulation, including *allowances* identified in any *allowance transfer* request properly *submitted* to the *NATS Administrator* by December 31 of the subject year, equals or exceeds the *control period* emissions of  $\text{NO}_x$  rounded to the nearest whole ton.

2. If there is an insufficient number of  $\text{NO}_x$  *allowances* available for  $\text{NO}_x$  *allowance deduction*, the source is out of compliance with this regulation and subject to enforcement action and penalties pursuant to Section 18 of this regulation.

d. If by the December 31 compliance deadline the *authorized account representative* or alternate *authorized account representative* either makes no  $\text{NO}_x$  *allowance deduction* request, or a  $\text{NO}_x$  *allowance deduction* request insufficient to meet the *allowances* required by the actual emissions, a violation of this regulation may have occurred and the *NATS Administrator* may deduct the necessary number of  $\text{NO}_x$  *allowances* from the *budget source's compliance account*. The *NATS Administrator* shall provide written notice to the *authorized account representative* that  $\text{NO}_x$  *allowances* were deducted from the source's *account*.

e. The *authorized account representative* or alternate *authorized account representative* may notify the *NATS Administrator* of any claim that the *NATS Administrator* made an error in recording transfer information that was *submitted* in accordance with Section 11 of this regulation, provided that such claim of error notification is *submitted* to the *NATS Administrator* by no later than 15 business days following the date of the notification by the *NATS Administrator* pursuant to actions taken in accordance with Section 16(d) of this regulation.

1. Such claim of error notification shall be in writing and shall include:

- i. A description of the error alleged to have been made by the *NATS Administrator*.
- ii. A proposed correction of the alleged error.
- iii. Any supporting documentation or other information concerning the alleged error and proposed corrective action.

iv. The following statement: "I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

v. Signature of the *authorized account representative* or alternate *authorized account representative* and date of signature.

2. The *NATS Administrator*, at the *NATS Administrator's* sole discretion based on the documentation provided, shall determine what changes, if any, shall be made to the *account(s)* subject to the alleged error. Not later than 20 business days after receipt of a claim of error notification, the *NATS Administrator* shall submit to the *authorized account representative* and to the Department a written response stating the determination made, any action taken by the *NATS Administrator*, and the reason(s) for the determination and actions.

3. The *NATS Administrator* may, without prior notice of a claim of error and at the *NATS Administrator's* sole discretion, correct any errors in any account on the *NATS Administrator's* own motion. The *NATS Administrator* shall notify the *authorized account representative* and the Department no later than 20 business days following any such corrections.

#### Section 17 - Compliance Certification

a. For each  $\text{NO}_x$  *allowance control period*, the *authorized account representative* or alternate *authorized account representative* of each *budget source* shall submit to the Department an annual compliance certification.

b. The compliance certification shall be *submitted* no later than December 31 of each year.

c. The compliance certification shall contain, at a minimum, the following information:

1. Identification of the *budget source*, including the *budget source's* name and address, the name of the *authorized account representative* and alternate *authorized account representative*, if any, and the *NATS account number*.

2. A statement indicating whether or not emissions data was *submitted* to the *NETS Administrator* pursuant to Section 15 of this regulation.

3. A statement indicating whether or not the *budget source* held sufficient  $\text{NO}_x$  *allowances*, as determined in Section 16 of this regulation, in its *compliance account* for the  $\text{NO}_x$  *allowance control period* as of December 31 of the subject year, or by being identified in an *allowance transfer* request that was *submitted* by December 31 of the subject year, to equal or exceed the *budget source's* actual emissions as reported to the *NETS Administrator* for the *control period*.

4. A statement of certification whether the monitoring plan which governs the *budget source* was maintained to reflect actual operation and monitoring of the *budget source* and contains all information necessary to attribute monitored emissions to the *budget source*.

5. A statement of certification that all emissions from the *budget source* were accounted for, either through the applicable monitoring or through application of the appropriate missing data procedures.

6. A statement whether the facts that form the basis

for certification of each monitor or monitoring method approved in accordance with Section 13 of this regulation have changed.

7. If a change is required to be reported in accordance with Section 17(c)(6) of this regulation, specify the nature of the change, when the change occurred, and how the *budget source's* compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.

8. The following statement in verbatim, "*I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fines or imprisonment.*"

9. Signature of the *budget source's* authorized account representative or alternate authorized account representative and the date of signature.

d. The Department may verify compliance by whatever means necessary, including but not limited to:

1. Inspection of facility operating records.
2. Obtaining information on *allowance deduction* and transfers from the *NATS Administrator*.
3. Obtaining information on emissions from the *NETS Administrator*.
4. Testing emission monitoring devices.
5. Requiring the *budget source* to conduct emissions testing using testing methods approved by the Department.

#### Section 18 - Failure to Meet Compliance Requirements

a. If the emissions from a *budget source* exceed *allowances* held in the *budget source's* compliance account for the *control period* as of December 31 of the subject year, the *NATS Administrator* shall deduct *allowances* from the *budget source's* compliance account for the next *control period* at a rate of three (3) *allowances* for every one (1) ton of *excess emissions*.

1. The *NATS Administrator* shall provide written notice to the *budget source's* authorized account representative that  $\text{NO}_x$  *allowances* were deducted from the *budget source's* account.

2. The *authorized account representative* or alternate *authorized account representative* may notify the *NATS Administrator* of any claim that the *NATS Administrator* made an error in recording *submitted* transfer information in accordance with Section 16(e) of this

regulation.

b. In addition to  $\text{NO}_x$  *allowance deduction* penalties under Section 18(a) of this regulation, the Department may enforce the provisions of this regulation under 7 Del. C. Chapter 60. For the purposes of determining the number of days of violation, any *excess emissions* for the *control period* shall constitute daily violations for the *control period*, 153 violations.

#### Section 19 - Program Audit

a. The Department shall conduct an audit of the  $\text{NO}_x$  Budget Program prior to May 1, 2002, and at a minimum every three years thereafter. The audit shall include the following:

1. Confirmation of emissions reporting accuracy through validation of  $\text{NO}_x$  *allowance* monitoring and data acquisition systems at the *budget source*.

2. Examination of the extent to which *banked allowances* have, or have not, contributed to emissions in excess of the *budget* for each *control period* covered by the audit.

3. An analysis of the geographic distribution of emissions as well as hourly and daily emission totals in the context of ozone control.

4. An assessment of whether the program is providing the level of emissions reductions anticipated and include in the SIP.

b. The Department shall prepare a report on the results of the audit. The Department shall seek public input on the conclusions contained in the audit report and provide for a public notice, public comment period, and allow for the request to hold a public hearing on the conclusions contained in the report.

c. In addition to the Department audit, the Department may seek a third party audit of the program. Such an audit could be implemented by the Department or could be performed on a region-wide basis under the supervision of the *OTC*.

d. Should an audit result in recommendations for program revisions at the state level, the Department shall consider the audit recommendations, in consultation with the *OTC*, and if found necessary, propose the appropriate program revisions as changes to current procedures or modifications to this regulation.

#### Section 20 - Program Fees

The *authorized account representative* or alternate *authorized account representative* of each *compliance account* and each *general account* shall pay fees to the Department consistent with the fee schedule established from time to time by the Delaware General Assembly, should a fee schedule be established.

# PROPOSED REGULATIONS

NO<sub>x</sub> BUDGET PROGRAM --- APPENDIX "A"

COMPANY	FACILITY and PLANT POINT	OTC IDENTIFIED ALLOWANCES	EXCEPTIONAL CIRCUMSTANCES ALLOWANCES	RESERVE ALLOWANCES	FINAL ALLOWANCES	SOURCE TYPE
<b>DELMARVA POWER</b>	Christiana Sub 001	6	-0-	1	7	Non-Part 75
	Christiana Sub 002	6	-0-	1	7	Non-Part 75
	Delaware City 002	1	-0-	1	2	Non-Part 75
	Edge Moor 001	1	-0-	1	2	Non-Part 75
	Edge Moor 002	241	-0-	1	242	Part 75
	Edge Moor 003	345	-0-	1	346	Part 75
	Edge Moor 004	621	28	1	650	Part 75
	Hay Road 001	49	-0-	1	50	Non-Part 75
	Hay Road 002	34	-0-	1	35	Non-Part 75
	Hay Road 3*	-0-	-0-	-0-	-0-	Part 75
	Indian River 001	340	-0-	1	341	Part 75
	Indian River 002	397	-0-	1	398	Part 75
	Indian River 003	834***	-0-	1	835	Part 75
	Indian River 004	1,652	-0-	2	1,654	Part 75
	Indian River 10**	-0-	-0-	1	2	Non-Part 75
	Madison Str. 001	-0-	-0-	1	1	Non-Part 75
	West Sub 001	2	-0-	1	3	Non-Part 75
<b>DFD Operating Services</b>	McKee Run 001	72***	-0-	1	73	Non-Part 75
	McKee Run 002	44***	-0-	1	45	Non-Part 75
	McKee Run 003	184	-0-	2	186	Part 75
	VanSant 1*	-0-	-0-	-0-	-0-	Part 75
<b>FIRST STATE STAR ENTERPRISE</b>	Co-Gen 1**	-0-	-0-	2	203	Non-Part 75
	DelawareCity 006****	-0-	-0-	1	105	Non-Part 75
	Delaware City 019	20	-0-	1	21	Non-Part 75
	Delaware City 034	70	-0-	1	71	Non-Part 75
	Delaware City 067	93	-0-	1	94	Non-Part 75
	Delaware City 068	206	-0-	1	207	Non-Part 75
	Delaware City 069	227	-0-	1	228	Non-Part 75
	Delaware City 070	214	-0-	2	216	Non-Part 75
	Delaware City 072	-0-	-0-	-0-	-0-	Non-Part 75
	Delaware City 074	117	-0-	1	118	Non-Part 75
	Delaware City 105	-0-	-0-	-0-	-0-	Non-Part 75
<b>TOTAL</b>		5,776	28	32	6,142	

NOTES: (\*) These Units did not start operation until after 1990.

(\*\*) Units operated in the 1990 NO<sub>x</sub> control period but were not included in the "1990 OTC Baseline Emissions Inventory".

(\*\*\*) OTC MOU allowances corrected from "1990 OTC Baseline Emissions Inventory" due to use of incorrect RACT factor.

(\*\*\*\*) OTC MOU allowances corrected from "1990 OTC Baseline Emissions Inventory" due to incorrect reporting of 1990 fuel use information.

NO<sub>x</sub> BUDGET PROGRAM --- APPENDIX "B"

COMPANY	FACILITY or PLANT POINT	1990 BASELINE HEAT INPUT (10 <sup>6</sup> BTU)	1990 BASELINE NO <sub>x</sub> EMISSIONS (Tons)	1990 BASELINE EMISSION RATE (lb/mmBTU)	RACT NO <sub>x</sub> EMISSIONS (Tons)
DELMARVA POWER	Christiana Sub 001	16,243	5.8	0.709	5.8
	Christiana Sub 002	15,447	5.5	0.709	5.5
	Delaware City 002	1,612	0.6	0.703	0.6
	Edge Moor 001	1,835	0.7	0.708	0.7
	Edge Moor 002	2,409,836	655.8	0.545	648.1
	Edge Moor 003	3,451,182	928.7	0.540	516.0
	Edge Moor 004	6,213,944	1,436.8	0.463	1,147.3
	Hay Road 001	938,341	49.0	0.105	49.0
	Hay Road 002	631,111	33.6	0.106	33.6
	Hay Road 3*	-0-	-0-	-0-	-0-
	Indian River 001	1,816,612	755.6	0.828	755.6
	Indian River 002	2,134,257	882.3	0.828	882.3
	Indian River 003	4,521,301	1,853.7	0.819	762.1
	Indian River 004	8,747,546	3,671.6	0.838	1,830.8
	Indian River 10**	-0-	-0-	-0-	-0-
	Madison Street 001	1,079	0.4	0.706	0.4
	West Sub 001	6,105	2.2	0.709	2.2
DFD	McKee Run 001	344,472	91.6	0.524	55.0
	McKee Run 002	211,742	56.3	0.505	33.8
	McKee Run 003	1,724,601	411.7	0.447	321.8
	VanSant 1*	-0-	-0-	-0-	-0-
FIRST STATE	Co-Gen 1**	-0-	-0-	-0-	-0-
STAR ENTERPRISE	Delaware City 006***	-0-	-0-	-0-	-0-
	Delaware City 019	318,601	20.1	0.126	20.1
	Delaware City 034	1,100,470	69.5	0.126	69.5
	Delaware City 067	931,712	229.0	0.486	116.5
	Delaware City 068	1,820,133	588.5	0.647	345.8
	Delaware City 069	2,002,309	647.4	0.647	440.5
	Delaware City 070	1,888,905	610.7	0.647	368.3
	Delaware City 072	-0-	-0-	-0-	-0-
	Delaware City 074	1,847,552	116.7	0.126	116.7
	Delaware City 105	-0-	-0-	-0-	-0-

NOTES: Data as identified in "1990 OTC NO<sub>x</sub> Baseline Emission Inventory", Final OTC NO<sub>x</sub> Baseline Inventory, Point-Segment Level Data.

(\*) These Units did not start operation until after 1990.

(\*\*) Indian River Point 10, First State Co-Gen 1, and Delaware City 006 were not included in the Reference Document, but were operating in the 1990 NO<sub>x</sub> control period.

**DIVISION OF AIR AND WASTE MANAGEMENT**

**AIR QUALITY MANAGEMENT SECTION**

Statutory Authority: 7 Delaware Code, Section 6010 (7 Del.C. 6010)

Brief Synopsis of the Subject, Substance and Issues:

The Department of Natural Resources and Environmental Control, in accordance with 7 Del. C. §6010, has revised Regulations 1 and 3 of the Regulations Governing the Control of Air Pollution. The amendments add one (1) definition to Regulation No. 1, and revises Sections 6 and 11 of Regulation No. 3. These changes are to accommodate the new National Ambient Air Quality Standards for Ozone and Fine Particulate Matter.

Possible Terms of the Agency Action:

The Regulation has no term limits

Statutory Basis or Legal Authority to Act:

7 Del.C. Section 6010

List of Other Regulations That May be Impacted or Affected by the Proposal:

No other regulations will be affected, however much of DNREC's activity relating to air pollution control will be greatly affected by these changes.

Notice Of Public Comment:

The Secretary of The Department of Natural Resources and Environmental Control has scheduled a public hearing on February 10, 1999, for the purpose of considering certain amendments to the Regulations Governing the Control of Air Pollution. The revisions amend Regulations No. 1 and 3, which will add a new definition pertaining to Fine Particulate Matter, commonly known as PM<sub>2.5</sub>; add a new 8-hour standard for Ozone, and define the manner in which compliance with the standards being changed are to be determined.

The public hearing on February 10, 1999, will be held in the Department's auditorium at Kings Highway in Dover, at 6:00 PM.

Proposed Regulation Changes to the Delaware  
Regulations Governing the Control of Air Pollution

Regulation No. 1 - DEFINITIONS AND  
ADMINISTRATIVE PRINCIPLES

PM<sub>2.5</sub> - Particulate matter with an aerodynamic diameter of less than or equal to a nominal 2.5 micrometers, as determined by the appropriate reference methods.

Regulation No. 3 - AMBIENT AIR QUALITY  
STANDARDS

Section 1 - General Provisions

- 1.1...
- 1.2...
- 1.3...
- 1.4...
- 1.5...

1.6 The sampling and analytical procedures and techniques employed to determine ambient air concentrations of contaminants shall be consistent with methods which result in a representative evaluation of the prevailing conditions. The following methods shall be used directly or employed as reference standards against which other methods may be calibrated;

- a. ...
- b. ...
- c. ...
- d. ...
- e. ...
- f. ...
- g. ...
- h. ...
- i. ...

j. Ambient concentrations of PM<sub>2.5</sub> particulate shall be determined by the reference method based on 40 CFR, Part 50, Appendix L, as found in the Federal Register dated July 18, 1997, on page 38714 – 38752.

Section 6 - Ozone

6.1 1-hour primary and secondary ambient air quality standards for ozone

The average number of days per calendar year with a maximum one hour average value exceeding 235 Fg/m<sup>3</sup> (0.12 ppm) shall be equal to or less than one, averaged over three consecutive years. This standard shall be applicable to New Castle and Kent Counties.

6.2 8-hour primary and secondary ambient air quality standards for ozone

The average of the fourth highest daily maximum 8-hour average ozone concentration is less than or equal to 0.08 ppm, averaged over three consecutive years. This standard applies to all Counties in Delaware.

Section 11 - PM<sub>10</sub> and PM<sub>2.5</sub> Particulates

11.1 The Primary and Secondary Ambient Air Quality Standards for Particulate Matter, measured as PM<sub>10</sub> are:

a. 150 micrograms per cubic meter (Fg/m<sup>3</sup>), 24 hour average concentration. The standards are attained when ~~the expected number of days per calendar year with a 24-hour average concentration above 150 Fg/m<sup>3</sup>, as determined in accordance with 40 CFR, Part 50, Appendix K, is equal to or less than one.~~ the 99<sup>th</sup> percentile 24-hour concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, as found in the Federal Register dated July 18, 1997, on page 38759, is less than or equal to 150 micrograms per cubic meter (Fg/m<sup>3</sup>).

b. 50 micrograms per cubic meter (Fg/m<sup>3</sup>), annual arithmetic mean. The standards are attained when the ~~expected~~ annual arithmetic mean concentration, as determined in accordance with 40 CFR, Part 50, Appendix ~~K~~ N, as found in the Federal Register dated July 18, 1997, on page 38759, is less than or equal to 50 Fg/m<sup>3</sup>

11.2 The Primary and Secondary Ambient Air Quality Standards for Particulate Matter, measured as PM<sub>2.5</sub> are:

a. 50 micrograms per cubic meter (Fg/m<sup>3</sup>) 24-hour average concentration. The 24-hour primary and secondary PM<sub>2.5</sub> standards are met when the 98<sup>th</sup> percentile 24-hour concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, as found in the Federal Register dated July 18, 1997, on page 38757 - 38758, is less than or equal to 50 Fg/m<sup>3</sup>

b. 15.0 micrograms per cubic meter (Fg/m<sup>3</sup>) annual arithmetic mean concentration. The annual primary and secondary PM<sub>2.5</sub> standards are met when the annual arithmetic mean concentration, as determined in accordance with 40 CFR, Part 50, Appendix N, as found in the Federal Register dated July 18, 1997, on page 38756 -38757, is less than or equal to 15.0 Fg/m<sup>3</sup>.

**DIVISION OF FISH AND WILDLIFE**

Statutory Authority: 23 Delaware Code,  
Section 2113A(a), 2114  
(23 Del.C. 2113A(a), 2114)

## REGISTER NOTICE

1. Title of the Regulations:

BOATING REGULATIONS

2. Brief Synopsis of the Subject, Substance and Issues:

Amendments are being proposed to: 1) define the terms "operate," "ship lifeboat" and "passenger for hire;" 2) update the regulations to reflect the enactment of Senate Bill No. 290 and House Bill No. 55; 3) authorize the revocation, cancellation or suspension of a certificate of number under certain conditions; 4) require owners of homemade vessels to file a photograph of such vessel with the Division of Fish and Wildlife before the certificate of number is issued or renewed; 5) prevent vessels used exclusively as boat docking facilities from being issued certificates of number; 6) require owners of vessels subject to registration and used as boat docking facilities to comply with 7 Delaware Code, Chapter 72 (relating to the use of subaqueous lands); 7) establish criteria for reviewing applications from persons engaged in both retail sales and repairs of boats to issue boat registrations; and 8) correct typographical errors.

3. Possible Terms of the Agency Action:

None

4. Statutory Basis or Legal Authority to Act:

23 Delaware Code, Sections 2113A(a) and 2114

5. Other Regulations Affected by the Proposal:

Regulations promulgated by the Department of Natural Resources and Environmental Control, Division of Water Resources pursuant to 7 Delaware Code, Section 7212.

6. Notice of Public Comment:

A public hearing will be held on February 1, 1999, at 7:30 p.m. in the auditorium of the Richardson and Robbins Building, 89 Kings Highway, Dover, Delaware. Comments may be in writing or may be presented orally at the hearing. Written comments must be received by the Division of Fish and Wildlife no later than 4:30 p.m. on February 8, 1999, and should be addressed to James H. Graybeal, Chief of Enforcement, Division of Fish and Wildlife, 89 Kings Highway, Dover, Delaware 19901.

7. Prepared by: James H. Graybeal (302-739-3440)

\* PLEASE NOTE THAT THE PROPOSED BOATING REGULATIONS PUBLISHED IN THE DECEMBER 1998 ISSUE OF THE REGISTER, AT PAGES 930 - 946, ARE THE EXISTING BOATING REGULATIONS. THE FOLLOWING REGULATIONS CONTAIN THE PROPOSED CHANGES.

**BOATING REGULATIONS**

## BR-1. GENERAL.

## Section 1. Code of Federal Regulations.

These regulations reference provisions from the Code of Federal Regulations (CFR), revised as of July 1, 1997, and October 1, 1996, for U.S.C. Titles 33 and 46, respectively.

## Section 2. Application of Regulations.

Unless otherwise specified, these regulations shall apply to all vessels used on the waters of this State.

## Section 3. Obedience to Orders by Enforcement Officers.

It shall be a violation of this regulation for a person to willfully fail or refuse to comply with any lawful order or direction of an enforcement officer invested by law with authority to enforce these regulations.

## BR-2. DEFINITIONS.

For purposes of BR-3 through BR-12, the following words and phrases shall have the meaning ascribed to them unless the context clearly indicates otherwise:

(1) "All-round light" shall mean a light showing an unbroken light over an arc of the horizon of 360 degrees.

(2) "Boat" shall mean any vessel manufactured or used primarily for ~~non-commercial~~ noncommercial use; leased, rented, or chartered to another for the latter's ~~non-commercial~~ noncommercial use; or engaged in the carrying of 6 or fewer passengers for hire.

(3) "Coast Guard approved" shall mean that the equipment has been determined to be in compliance with Coast Guard specifications and regulations relating to the materials, construction, and performance.

(4) "Commercial hybrid PFD" shall mean a hybrid PFD approved for use on commercial vessels identified on the PFD label.

(5) "Division" shall mean the Division of Fish and Wildlife.

(6) "Enforcement officer" shall mean a sworn member of a police force or other law-enforcement agency of this State or of any county or municipality who is responsible for the prevention and the detection of crime and the enforcement of the laws of this State or other governmental units within the State.

(7) "Especially hazardous condition" shall mean a condition which endangers the life of a person on board a vessel.

(8) "First aid" shall mean emergency care and treatment of an injured person before definitive medical and surgical management can be secured.

(9) "~~Grossly negligent~~" shall mean the intentional failure to perform a manifest duty in reckless disregard of the consequences as affecting the life or property of another; such a gross want of care and regard for the rights of others as to justify the presumption of willfulness and wantonness.

(10)(9) "Issuing authority" shall mean a state where a numbering system for vessels has been approved by the Coast Guard or the Coast Guard where a numbering system has not been approved. Issuing authorities are listed in Appendix A.

(11) "~~Licensing agent~~" shall mean a qualified person authorized by the Division to distribute boat registrations pursuant to § 2113(d) of Title 23.

(12)(10) "Masthead light" shall mean a white light placed over the fore and aft centerline of a vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel, except that on a vessel of less than 12 meters (39.4 ft.) in length the masthead light shall be placed as nearly as practicable to the fore and aft centerline of the vessel.

(13)(11) "Motorboat" shall mean any vessel 65 feet (19.8 m) in length or less equipped with propulsion machinery, including steam.

(14)(12) "Motor vessel" shall mean any vessel more than 65 feet (19.8 m) in length propelled by machinery other than steam.

(15)(13) "Navigable channel" shall mean a channel plotted on a National Oceanic and Atmospheric Administration nautical chart or a channel marked with buoys, lights, beacons, ranges, or other markers by the Coast Guard or with Coast Guard approval.

(16)(14) "Negligent" shall mean the omission to do something which a reasonable person, guided by those ordinary considerations which ordinarily regulate human affairs, would do, or the doing of something which a reasonable and prudent person would not do.

(17)(15) "Open boat" shall mean a motorboat or motor vessel with all engine and fuel tank compartments, and other spaces to which explosive or flammable gases and vapors from these compartments may flow, open to the atmosphere and so arranged as to prevent the entrapment of such gases and vapors within the vessel.

(16) "Operate" shall mean to navigate or otherwise use.

(18)(17) "Operator" shall mean that person in control or in charge of the vessel while the vessel is in use.

(19)(18) "Owner" shall mean a person who claims lawful possession of a vessel by virtue of legal title or equitable interest therein which entitles him/her to such possession.

(20) "~~Passenger~~" shall mean every person carried on

board a vessel other than:

(a) The owner or the owner's representative;

(b) The operator;

(c) Bona fide members of the crew engaged in the business of the vessel who have contributed no consideration for their carriage and who are paid for their services; or

(d) Any guest on board a vessel which is being used exclusively for pleasure purposes who has not contributed any consideration, directly or indirectly, for his/her carriage.

(19) "Passenger for hire" shall mean a passenger for whom consideration is contributed as a condition of carriage on the vessel, whether directly or indirectly flowing to the owner, charterer, operator, agent, or any other person having an interest in the vessel.

(21)(20) "Personal flotation device" shall mean a device that is approved by the Commandant of the Coast Guard pursuant to 46 CFR Part 160.

(22) (21) "PFD" shall mean personal flotation device.

(23)(22) "~~Racing shell~~", "~~rowing scull~~", "~~racing canoe~~" or "~~racing shell, rowing scull, racing canoe or racing kayak~~" shall mean a manually propelled vessel that is recognized by national or international racing associations for use in competitive racing and one in which all occupants row, scull, or paddle, with the exception of a coxswain, if one is provided, and is not designed to carry and does not carry any equipment not solely for competitive racing.

(24)(23) "Recreational vessel" shall mean any vessel being manufactured or operated used primarily for pleasure noncommercial use; or leased, rented, or chartered to another for the latter's pleasure noncommercial use. It does not include a vessel engaged in the carrying of six or fewer passengers for hire.

(25)(24) "Restricted visibility" shall mean any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, or any other similar causes.

(25) "Ship lifeboat" shall mean a lifeboat carried aboard a vessel and used exclusively for lifesaving purposes.

(26) "Sidelights" shall mean a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of the horizon of 112.5 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. On a vessel of less than 20 meters (65.6 ft.) in length, the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel, except that on a vessel of less than 12 meters (39.4 ft.) in length the sidelights when combined in one lantern shall be placed as nearly as practicable to the fore and aft centerline of the vessel.

(27) "Slow-No-Wake" shall mean as slow as possible without losing steerage way and so as to make the least possible wake. (This almost always means speeds of less than 5 miles per hour.)

(28) "Special flashing light" shall mean a yellow light flashing at regular intervals at a frequency of 50 to 70 flashes

per minute, placed as far forward and as nearly as practicable on the fore and aft centerline of the tow and showing an unbroken light over an arc of the horizon of not less than 180 degrees nor more than 225 degrees and so fixed as to show the light from right ahead to abeam and no more than 22.5 degrees abaft the beam on either side of the vessel.

(29) "State of principal use" shall mean a state on whose waters a vessel is used or to be used most during a calendar year. It shall mean this State if the vessel is to be used, docked, or stowed on the waters of this State for over 60 consecutive days.

(30) "Sternlight" shall mean a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.

(31) "Towing light" shall mean a yellow light having the same characteristics as the sternlight.

(32) "Type I PFD" shall mean any Coast Guard approved wearable device designed to turn most unconscious wearers in the water from a face down position to a vertical and slightly backward position. The Type I PFD has the greatest required buoyancy: the adult size provides at least 22 pounds buoyancy, and the child size provides at least 11 pounds buoyancy.

(33) "Type II PFD" shall mean any Coast Guard approved wearable device designed to turn some unconscious wearers from a face-down position to a vertical and slightly backward position. An adult size device provides at least 15.5 pounds buoyancy, the medium child size provides at least 11 pounds, and the infant and small child sizes provide at least 7 pounds buoyancy.

(34) "Type III PFD" shall mean any Coast Guard approved wearable device designed to maintain conscious wearers in a vertical and slightly backward position. While the Type III PFD has the same minimum buoyancy as the Type II PFD, it has little or no turning ability.

(35) "Type IV PFD" shall mean any Coast Guard approved device designed to be thrown to a person in the water and grasped and held by such person until rescued. It is not designed to be worn. Type IV devices, which include buoyant cushions, ring buoys, and horseshoe buoys, are designed to have at least 16.5 pounds buoyancy.

(36) "Type V PFD" shall mean any Coast Guard approved wearable device designed for a specific and restricted use. The label on the PFD indicates the kinds of activities for which the PFD may be used and whether there are limitations on how it may be used.

(37) "Type V hybrid PFD" shall mean any Coast Guard approved wearable device designed to give additional buoyancy by inflating an air chamber. When inflated it turns the wearer similar to the action provided by a Type I, II, or III PFD (the type of performance is indicated on the label). The exact specification and performance of the PFD will

vary somewhat with each device.

(38) "Use" shall mean to operate, navigate, or employ.

(39) "Water skiing" shall include any activity whereby a person is towed behind or alongside a vessel.

### BR-3. REGISTRATION, NUMBERING, AND MARKING OF VESSELS.

#### Section 1. Applicability.

This regulation shall apply to all vessels propelled by any form of mechanical power, including electric trolling motors, used or placed on the waters of this State, except the following:

- (1) Foreign vessels temporarily using such waters;
- (2) Military or public vessels of the United States, except recreational-type public vessels;
- (3) A vessel whose owner is a state or subdivision thereof, other than this State, which is used principally for governmental purposes, and which is clearly identifiable as such;
- (4) A vessel used exclusively as a boat docking facility, as defined by § 6002(46) of Title 7, or a ship's lifeboat; and
- (5) Vessels which have been issued valid marine documents by the Coast Guard.

#### Section 2. Vessel Number Required.

(a) Except as provided in Section 3 of this regulation, no person shall use or place on the waters of this State a vessel to which this regulation applies unless:

- (1) It has a number issued on a certificate of number by this State; and
- (2) The number is displayed as described in Section 8 of this regulation.

(b) This regulation shall not apply to a vessel for which a valid temporary certificate has been issued to its owner by the issuing authority in the state in which the vessel is principally used.

#### Section 3. Reciprocity.

(a) When the state of principal use is a state other than this State and the vessel is properly numbered by that state, the vessel shall be deemed in compliance with the numbering system requirements of this State in which it is temporarily used.

(b) When this State becomes the state of principal use for a vessel numbered by another state, the vessel's current number shall be recognized as valid for a period of 60 consecutive days before numbering is required by this State.

#### Section 4. Other Numbers and Letters Prohibited.

No person shall use a vessel to which this regulation applies that has any letters or numbers that are not issued by an issuing authority for that vessel on its forward half.

Section 5. Certificate of Number Required (Registration Card).

(a) Except as provided in Section 3 of this regulation, no person shall use a vessel to which this regulation applies unless it has on board:

(1) A valid certificate of number or temporary certificate for that vessel issued by this State; or

(2) For rental vessels described in subsection (b) of this section, a copy of the lease or rental agreement, signed by the owner or the owner's authorized representative and by the person leasing or renting the vessel, that contains at least:

(a) The vessel number that appears on the certificate of number; and

(b) The period of time for which the vessel is leased or rented.

(b) The certificate of number for vessels less than 26 feet in length and leased or rented to another for the latter's ~~non-commercial~~ noncommercial use for less than 24 hours may be retained on shore by the vessel's owner or representative at the place from which the vessel departs or returns to the possession of the owner or the owner's representative.

Section 6. Inspection of Certificate.

Each person using a vessel to which this regulation applies shall present the certificate of number, lease, or rental agreement required by Section 5 of this regulation to any enforcement officer for inspection at the officer's request.

Section 7. Location of Certificate of Number.

No person shall use a vessel to which this regulation applies unless the certificate of number, lease, or rental agreement required by Section 5 of this regulation is carried on board in such a manner that it can be handed to a person authorized under Section 6 of this regulation to inspect it.

Section 8. Numbers: Display; Size; Color.

(a) Each number required by Section 2 of this regulation shall:

(1) Be painted on or permanently attached to each side of the forward half of the vessel, except as allowed by subsection (b) or required by subsection (c) of this section;

(2) Be in plain vertical block characters of not less than 3 inches in height;

(3) Contrast with the color of the background and be distinctly visible and legible;

(4) Have spaces or hyphens that are equal to the width of a letter other than "I" or a number other than "1" between the letter and number groupings (example: DL 5678 D or DL-5678-D); and

(5) Read from left to right.

(b) When a vessel is used by a manufacturer or by a

dealer for testing or demonstrating, the number may be painted on or attached to removable plates that are temporarily but firmly attached to each side of the forward half of the vessel.

(c) On vessels so configured that a number on the hull or superstructure would not be easily visible, the number shall be painted on or attached to a backing plate that is attached to the forward half of the vessel so that the number is visible from each side of the vessel.

(d) Expired validation decals shall be removed and only effective decals shall be displayed.

Section 9. Notification of Issuing Authority.

The person whose name appears as the owner of a vessel on a certificate of number shall, within 15 days, notify the Division of:

(1) Any change in said person's address;

(2) The theft or recovery of the vessel;

(3) The loss or destruction of a valid certificate of number;

(4) The transfer of all or part of said person's interest in the vessel; and

(5) The destruction or abandonment of the vessel.

~~Section 10. Surrender of Certificate of Number.~~

~~The person whose name appears as the owner of a vessel on a certificate of number shall surrender the certificate to the Division or a licensing agent within 15 days after it becomes invalid under subsections (b), (c), (d) or (e) of Section 14 of this regulation.~~

Section 10. Revocation, Cancellation or Suspension of Certificate of Number; Notice.

(a) The Division may revoke, cancel or suspend the certificate of number if it is determined by the Division that the certificate of number was issued unlawfully or erroneously.

(b) The Division may revoke, cancel or suspend the certificate of number for any vessel which is determined by the Division to be unsafe or unfit for use as a means of transportation on water.

(c) Whenever the Division revokes, cancels or suspends the certificate of number for a vessel, the Division shall immediately notify the owner and afford the owner an opportunity for a hearing before the Division.

Section 11. Removal of Number and Validation Decal.

The person whose name appears on a certificate of number as the owner of a vessel shall remove the number and validation sticker from the vessel when:

(1) The vessel is documented by the Coast Guard;

(2) The certificate of number is invalid under Section 14(b)(4) or (c) of this regulation; or

(3) This State is no longer the state of principal use.

**Section 12. Application for Certificate of Number.**

(a) Any person who is the owner of a vessel to which Section 1 of this regulation applies may apply for a certificate of number for that vessel by submitting the following to the Division or a licensing agent:

- (1) The application prescribed by the Division;
- (2) The fee required by § 2113(a) of Title 23; and
- (3) Proof of ownership as required by Section 22 of this regulation.

(b) Notwithstanding subsection (a) of this section, before the Division or a licensing agent issues or renews a certificate of number for a homemade vessel, a photograph of such vessel shall be filed with the Division and the Division, upon receipt of such photograph, may, upon reasonable cause, inspect the vessel to determine if it is safe and fit to be used as a means of transportation on water. In the event a homemade vessel is determined to be unsafe or unfit, the certificate of number shall not be issued or renewed until an endorsement is secured from the Division that such vessel is safe and fit.

**Section 13. Duplicate Certificate of Number.**

If a certificate of number is lost or destroyed, the person whose name appears on the certificate as the owner may apply for a duplicate certificate by submitting the following to the Division or a licensing agent:

- (1) The application prescribed by the Division; and
- (2) The fee required by § 2113(b) of Title 23.

**Section 14. Validity of Certificate of Number; Surrender of Certificate of Number.**

(a) Except as provided in subsections (b), (c), (d) and (e) of this section, a certificate of number is valid until the date of expiration prescribed by this State.

(b) A certificate of number issued by this State is invalid after the date upon which:

- (1) The vessel is documented or required to be documented;
- (2) The person whose name appears on the certificate of number as owner of the vessel transfers all of his/her ownership in the vessel; ~~or~~
- (3) The vessel is destroyed or abandoned; or
- (4) The Division revokes, cancels or suspends the certificate of number.

(c) A certificate of number issued by this State is invalid if:

- (1) The application for the certificate of number contains a false or fraudulent statement; or
- (2) The fees for the issuance of the certificate of number are not paid.

(d) A certificate of number is invalid 60 days after the day on which another state becomes the state of principal use.

(e) A certificate of number is invalid when the person whose name appears on the certificate involuntarily loses his/her interest in the numbered vessel by legal process.

(f) The person whose name appears as the owner of a vessel on a certificate of number shall surrender the certificate to the Division or a licensing agent within 15 days after it becomes invalid under subsection (b), (c), (d) or (e) of this section.

**Section 15. Validation Stickers.**

(a) No person shall use a vessel that has a number issued by this State unless a validation sticker was issued with the certificate of number and the sticker:

- (1) Is displayed within 6 inches of the number; and
- (2) Meets the requirements in subsections (b) and (c) of this section.

(b) Validation stickers shall be approximately 3 inches square.

(c) The year in which each validation sticker expires shall be indicated by the colors, blue, international orange, green, and red, in rotation beginning with green for stickers that expired in 1975 (see Appendix B).

**Section 16. Contents of Application for Certificate of Number.**

(a) Each application for a certificate of number shall contain the following information:

- (1) Name of each owner;
- (2) Address of at least one owner, or the address of the principle place of business of an owner that is not an individual, including zip code;
- (3) Mailing address, if different from the address required by paragraph (a)(2) of this section;
- (4) Date of birth of the owner;
- (5) Citizenship of the owner;
- (6) State in which vessel is or will be principally used;
- (7) The number previously issued by an issuing authority for the vessel, if any;
- (8) Expiration date of certificate of number issued by the issuing authority;
- (9) Official number assigned by the Coast Guard, if applicable;
- (10) Whether the application is for a new number, renewal of a number, or transfer of ownership;
- (11) Whether the vessel is used for pleasure, rent or lease, dealer or manufacturer demonstration, commercial passenger carrying, commercial fishing, or other commercial use;
- (12) Make of vessel or name of vessel builder, if known;
- (13) Year vessel was manufactured or built, or model year, if known;
- (14) Manufacturer's hull identification number, if

any;

- (15) Overall length of vessel;
  - (16) Whether the hull is wood, steel, aluminum, fiberglass, plastic, or other;
  - (17) Type of vessel (open, cabin, house, etc.);
  - (18) Whether the propulsion is inboard, outboard, inboard-outdrive, jet, or sail with auxiliary engine;
  - (19) Whether the fuel is gasoline, diesel, or other;
  - (20) Social security number, or, if that number is not available, the owner's driver's license number (if the owner is other than an individual, the owner's taxpayer identification number, social security number, or driver's license number); and
  - (21) The signature of the owner.
- (b) An application made by a manufacturer or dealer for a number that is to be temporarily affixed to a vessel for demonstration or test purposes may omit items 13 through 20 of subsection (a) of this section.

#### Section 17. Contents of a Certificate of Number.

(a) Except as allowed in subsection (b) of this section, each certificate of number shall contain the following information:

- (1) Number issued to the vessel;
  - (2) Expiration date of the certificate;
  - (3) State of principal use;
  - (4) Name of the owner;
  - (5) Address of the owner, including zip code;
  - (6) Whether the vessel is used for pleasure, rent or lease, dealer or manufacturer demonstration, commercial passenger carrying, commercial fishing, or other commercial use;
  - (7) Manufacturer's hull identification number (or the hull identification number issued by the ~~Department~~ Division), if any;
  - (8) Make of vessel;
  - (9) Year vessel was manufactured;
  - (10) Overall length of vessel;
  - (11) Whether the vessel is an open boat, cabin cruiser, houseboat, etc.;
  - (12) Whether the hull is wood, steel, aluminum, fiberglass, plastic, or other;
  - (13) Whether the propulsion is inboard, outboard, inboard-outdrive, jet, or sail with auxiliary engine;
  - (14) Whether the fuel is gasoline, diesel, or other; and
  - (15) A quotation of the State regulations pertaining to change of ownership or address, documentation, loss, destruction, abandonment, theft or recovery of vessel, carriage of the certificate of number on board when the vessel is in use, rendering aid in a boat accident, and reporting of vessel casualties and accidents.
- (b) A certificate of number issued to a manufacturer or dealer to be used on a vessel for test or demonstration

purposes may omit items 7 through 14 of subsection (a) of this section if the word "manufacturer" or "dealer" is plainly marked on the certificate.

#### Section 18. Contents of Temporary Certificate.

A temporary certificate issued pending the issuance of a certificate of number shall contain the following information:

- (1) Make of vessel;
- (2) Length of vessel;
- (3) Type of propulsion;
- (4) State in which vessel is principally used;
- (5) Name of owner;
- (6) Address of owner, including zip code;
- (7) Signature of owner;
- (8) Date of issuance; and
- (9) Notice to the owner that the temporary certificate is invalid after 60 days from the date of issuance.

#### Section 19. Form of Number.

(a) Each number shall consist of the two capital letters "DL" denoting this State as the issuing authority, followed by:

- (1) Not more than four numerals followed by not more than two capital letters (example DL 1234 BD); or
  - (2) Not more than three numerals followed by not more than three capital letters (example: DL 567 EFG).
- (b) A number suffix shall not include the letters "I", "O", or "Q," which may be mistaken for numerals.

#### Section 20. Size of Certificate of Number.

Each certificate of number shall be 2½ by 3½ inches.

#### Section 21. Terms and Conditions for Vessel Numbering.

Except for a recreational-type public vessel of the United States, the State shall condition the issuance of a certificate of number on title to, the original manufacturer's or importer's statement or certificate of origin, copy of notarized bill of sale, or other proof of ownership of a vessel.

#### Section 22. Boat Registration Records.

- (a) All valid records shall be filed alphabetically by the last names of owners and numerically by "DL" registration numbers;
- (b) Invalid records shall be maintained for three years at which time they shall be destroyed.

#### Section 23. Licensing Agents.

(a) Pursuant to § 2113A(a) of Title 23, the Division may authorize as many qualified persons as licensing agents as it deems necessary to effectuate the efficient distribution of boat registrations. All new licensing agents shall be engaged in both retail sales and repairs of boats as a prerequisite for the issuance of boat registrations.

(b) In reviewing applications from persons engaged in both retail sales and repairs of boats to issue boat registrations, the Division may consider the following factors:

(1) The location of the applicant, particularly in relation to other licensing agents;

(2) The number of new and unused boats sold annually by the applicant;

(3) The number of used boats sold annually by the applicant;

(4) The extent to which the applicant advertises the sale and repair of boats;

(5) The extent to which the applicant is engaged in the repair of boats;

(6) The criminal history of the applicant; and

(7) Such other factors as the Division deems appropriate.

#### Section 24. Boat Docking Facilities.

If a vessel to which this regulation applies is used as a boat docking facility, as defined by § 6002(46) of Title 7, the owner shall also comply with Chapter 72 of Title 7 (relating to the use of subaqueous lands) and the regulations promulgated thereunder.

#### BR-4. CASUALTY REPORTING SYSTEM REQUIREMENTS.

##### Section 1. Administration.

The casualty reporting system of this State shall be administered by the Boating Law Administrator who shall:

(1) Provide for the reporting of all casualties and accidents required by Section 2 of this regulation;

(2) Receive reports of vessel casualties or accidents prescribed by Section 3 of this regulation;

(3) Review accident and casualty reports to assure accuracy and completeness of reporting; and

(4) Determine the cause of casualties and accidents reported.

##### Section 2. Report of Casualty or Accident.

(a) The operator of a vessel shall submit the casualty or accident report prescribed in 33 CFR § 173.57 to the reporting authority prescribed in Section 4 of this regulation when, as a result of an occurrence that involves the vessel or its equipment:

(1) A person dies;

(2) A person is injured and requires medical treatment beyond first aid;

(3) Damage to the vessel and other property totals more than \$500.00; or

(4) A person disappears from the vessel under circumstances that indicate death or injury.

(b) A report required by this section shall be made:

(1) Immediately if a person dies within 24 hours of the occurrence;

(2) Immediately if a person is injured and requires medical treatment beyond first aid, or disappears from a vessel; and

(3) Within 5 days of the occurrence or death if an earlier report is not required by this subsection.

(c) When the operator of a vessel cannot submit the casualty or accident report required by subsection (a) of this section, the owner shall submit the casualty or accident report.

(d) The accident or casualty report completed by a Fish and Wildlife Agent may be substituted to meet the requirements of this section.

##### Section 3. Casualty or Accident Report.

Each report required by Section 2 of this regulation shall be in writing, dated upon completion, and signed by the person who prepared it and shall contain, if available, the information about the casualty or accident required by the Coast Guard pursuant to 33 CFR § 173.57.

##### Section 4. Where to Report.

The report required by Section 2 of this regulation shall be submitted to the Boating Law Administrator, Department of Natural Resources and Environmental Control, Division of Fish and Wildlife, 89 Kings Highway, Dover, Delaware 19901.

##### Section 5. Immediate Notification of Death, Disappearance, or Physical Injury.

(a) When, as a result of an occurrence that involves a vessel or its equipment, a person dies or disappears from a vessel or sustains an injury requiring more than first aid, the operator shall, without delay, by the quickest means available, notify the Division of Fish and Wildlife Enforcement Section, Telephone: 302-739-4580 or 1-800-523-3336, of:

(1) The date, time, and exact location of the occurrence;

(2) The name of each person who died, disappeared, or sustained an injury;

(3) The number and name of the vessel; and

(4) The names and addresses of the owner and operator.

(b) When the operator of a vessel cannot give the notice required by subsection (a) of this section, at least one of the persons on board shall notify the Division of Fish and Wildlife Enforcement Section, Telephone: 302-739-4580 or 1-800-523-3336, or determine that the notice has been given.

##### Section 6. Rendering of Assistance in Accidents.

The operator of a vessel involved in an accident shall:

(1) Render necessary assistance to each individual

affected to save that affected individual from danger caused by the accident, so far as the operator can do so without serious danger to the operator's or individual's vessel or to individuals on board; and

(2) Give the operator's name and address and identification of the vessel to the operator or individual in charge of any other vessel involved in the accident, to any individual injured, and to the owner of any property damaged.

## BR-5. WATER SKIING.

### Section 1. Water Skiing.

(a) No person shall operate a vessel on any waters of this State for purposes of towing a person on water skis unless there is in such vessel a competent person, in addition to the operator, in a position to observe the progress of the person being towed. The observer shall be considered competent if he/she can, in fact, observe the person being towed and relay any signals from the person being towed to the operator. This subsection shall not apply to Class A vessels operated by the person being towed and designed to be incapable of carrying the operator in or on the vessel.

(b) No person shall engage in water skiing unless such person is wearing a Type I, Type II, Type III, or Type V PFD. This provision shall not apply to a performer engaged in a professional exhibition or a person preparing to participate or participating in an official regatta, boat race, marine parade, tournament, or exhibition.

(c) No person shall engage in water skiing and no person shall operate a vessel towing a person so engaged on any waters of this State with a tow line that exceeds 75 feet.

(d) No person shall engage in water skiing and no person shall operate a vessel towing a person so engaged on any waters of this State on which water skiing is prohibited.

(e) No person shall engage in water skiing and no person shall operate a vessel towing a person so engaged between sunset and sunrise.

(f) The operator of a vessel towing a water skier shall comply with all laws and regulations as they pertain to the individual's class of vessel and shall maneuver the vessel in a careful and prudent manner, so as not to interfere with other vessels or obstruct any channel or normal shipping lane, and maintain reasonable distance from persons and property, so as not to endanger the life or property of any person.

(g) No person shall engage in water skiing in such a manner as to strike or threaten to strike any person, vessel, or property, and no person shall operate a vessel or manipulate a tow line or other towing device in such a manner as to cause a water skier to strike or threaten to strike another person, vessel, or property.

(h) No person shall engage in water skiing and no person shall operate a vessel towing a person so engaged

within one hundred (100) feet of any person in the water, a pier, dock, float, wharf, or vessel anchored or adrift, or in any direction of boat launching ramps, both public and private.

### Section 2. Prohibited Water Skiing Areas.

Water skiing shall be prohibited in the following areas:

- (1) The Rehoboth-Lewes Canal, in its entirety;
- (2) The channel through Masseys Landing from Buoy No. 12 off Bluff Point to Buoy No. 19A;
- (3) The Assawoman Canal, in its entirety;
- (4) The Indian River Inlet between Buoy No. 1 and the Coast Guard Station;
- (5) Roosevelt Inlet from 100 yards off jetty entrance to the Canal;
- (6) White Creek south of Marker No. 9A; and
- (7) Any marked swimming areas, unless authorized by a special permit issued by the Department.

## BR-6. VESSEL SPEED.

### Section 1. Safe Boat Speed.

(a) Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

(b) The speed of all vessels on the waters of this State shall be limited to a Slow-No-Wake speed when within 100 feet of:

- (1) Any shoreline where "Slow-No-Wake" signs have been erected by the Department;
- (2) Floats;
- (3) Docks;
- (4) Launching ramps;
- (5) Marked swimming areas;
- (6) Swimmers; or
- (7) Anchored, moored, or drifting vessels.

(c) No person shall operate a vessel at a rate of speed greater than is reasonable having regard to conditions and circumstances such as the closeness of the shore and shore installations, anchored or moored vessels in the vicinity, width of the channel, and if applicable, vessel traffic and water use.

### Section 2. Responsibility of Operator.

The operator of any vessel on the waters of this State shall be legally responsible for injuries, damages to life, limb, or property caused by his/her vessel or vessel wake.

## BR-7. ~~NEGLIGENT AND GROSSLY NEGLIGENT OPERATION OF A VESSEL.~~

### Section 1. ~~Negligent or Grossly Negligent Operation.~~

(a) No person shall operate any vessel on the waters of

this State in a negligent manner.

~~(b) No person shall operate any vessel on the waters of this State in a grossly negligent manner.~~

~~(c) (b) Depending upon the degree of negligence, the following~~ The following actions shall constitute a violation of subsection (a) ~~or (b)~~ of this section:

(1) Failure to reduce speed in areas where boating is concentrated, endangering life, limb, and/or property;

(2) Operating at excessive speed at times of restricted visibility;

(3) Operating at excessive speed when maneuvering room is restricted by narrow channels or when vision is obstructed by such things as jetties, land, or other vessels;

(4) Impeding the right-of-way of a stand-on or privileged vessel so as to endanger risk of collision;

(5) Towing a water skier in a restricted area or where an obstruction exists;

(6) Operating a vessel within swimming areas when bathers are present;

(7) Operating a vessel in areas posted as closed to vessels due to hazardous conditions;

(8) Operating a vessel through an area where a regatta or marine parade is in progress in a way that could present a hazard to participants or spectators and interfere with the safe conduct of the event;

(9) Operating a vessel with any person sitting on the bow, gunwales, or stern with legs hanging over the side, except a sailboat equipped with lifelines while engaged in a race for which a permit has been secured under § 2120 of Title 23;

(10) Operating a vessel or use any water skis while under the influence of alcohol, any narcotic drug, barbiturate, marijuana, or hallucinogen;

(11) Loading a vessel with passengers or cargo beyond its safe carrying capacity;

(12) Operating a vessel with an engine of a higher horsepower rating than the rating noted on the vessel's capacity plate or in the manufacturer's specifications; and

(13) Other actions deemed by an enforcement officer to be in violation of subsection (a) ~~or (b)~~ of this regulation section.

#### BR-8. TERMINATION OF UNSAFE USE OF A VESSEL.

##### Section 1. Especially Hazardous Conditions.

Especially hazardous conditions warranting termination of voyage shall include, but not be limited to:

(1) Insufficient number of Coast Guard approved PFDs;

(2) Insufficient fire-extinguishing equipment;

(3) Overloaded beyond manufacturer's recommended safe loading capacity;

(4) Failure to display required navigation lights;

(5) Fuel leakage from either the fuel system or engine;

(6) Fuel accumulation in the bilges;

(7) Failure to meet ventilation requirements for tank and engine spaces;

(8) Improper backfire flame control;

(9) Excessive leakage or accumulation of water in bilges;

(10) Deteriorated condition of vessel; or

(11) Any other condition deemed hazardous by an enforcement officer.

##### Section 2. Enforcement.

(a) Enforcement officers shall, if a violation of this regulation is observed, and in their judgment such a deficiency creates an especially hazardous condition to the occupants of the vessel, direct the operator to take specific steps to correct the unsafe condition.

(b) *Compliance by operator.* - Immediate compliance by the operator is required for safety purposes. Failure to comply with the directives of an enforcement officer shall result in a citation under Section 3 of BR-1 as well as for the specific violation which created the unsafe condition.

#### BR-9. MINIMUM REQUIRED EQUIPMENT FOR VESSELS USING STATE WATERS.

##### PART A - General.

##### Section 1. Applicability.

(a) This regulation does not apply to:

(1) Military or public vessels of the United States, other than recreational-type public vessels; and

(2) A vessel used exclusively as a ship's lifeboat.

(b) Part B of this regulation prescribes general provisions applicable to all vessels covered by this regulation. Part C prescribes minimum required equipment for recreational vessels used on the waters of this State. Part D prescribes minimum required equipment for vessels other than recreational vessels that are not required to be documented.

##### PART B - Provisions Applicable to All Vessels Covered by this Regulation.

##### Section 1. Fire-Extinguishing Equipment.

(a) All hand portable fire extinguishers, semiportable fire extinguishing systems, and fixed fire extinguishing systems shall be Coast Guard approved pursuant to 46 CFR § 25.30-5.

(b) All required hand portable fire extinguishers and semiportable fire extinguishing systems shall be of the "B" type; i.e., suitable for extinguishing fires involving flammable liquids such as gasoline, oil, etc., where a blanketing or smothering effect is essential. The number designations for size will start with "I" for the smallest to

"V" for the largest. For the purpose of this regulation, only sizes I through III will be considered. Sizes I and II are considered hand portable fire extinguishers and sizes III, IV, and V are considered semiportable fire extinguishing systems which shall be fitted with suitable hose and nozzle or other practicable means so that all portions of the space concerned may be covered. Examples of size graduations for some of the typical hand portable fire extinguishers and semiportable fire extinguishing systems are set forth in the following table:

TYPE	SIZE	FOAM (Gallons)	CO2 (Pounds)	DRY Chemical (Pounds)	HALON (Pounds)
B	I	1 1/4	4	2	2 1/2
B	II	2 1/2	15	10	10
B	III	12	35	20	-

(c) All hand portable fire extinguishers and semiportable fire extinguishing systems shall have permanently attached thereto a metallic name plate giving the name of the item, the rated capacity in gallons, quarts, or pounds, the name and address of the person or firm for whom approved, and the identifying mark of the actual manufacturer.

(d) Vaporizing-liquid type fire extinguishers containing carbon tetrachloride or chlorobromomethane or other toxic vaporizing liquids are not acceptable as equipment required by this part.

(e) Hand portable or semiportable extinguishers which are required on their name plates to be protected from freezing shall not be located where freezing temperatures may be expected.

(f) The use of dry chemical, stored pressure, fire extinguishers not fitted with pressure gauges or indicating devices, manufactured prior to January 1, 1965, may be permitted on motorboats and other vessels so long as such extinguishers are maintained in good and serviceable condition. The following maintenance and inspections are required for such extinguishers:

(1) When the date on the inspection record tag on the extinguisher shows that 6 months have elapsed since last weight check ashore, then such extinguisher is no longer accepted as meeting required maintenance conditions until reweighed ashore and found to be in a serviceable condition and within required weight conditions;

(2) If the weight of the container is ¼ ounce less than that stamped on the container, it shall be serviced;

(3) If the outer seal or seals (which indicate tampering or use when broken) are not intact, an enforcement officer may inspect such extinguisher to see that the frangible disc in the neck of the container is intact; and if such disc is not intact, the container shall be serviced;

and

(4) If there is evidence of damage, use, or leakage, such as dry chemical powder observed in the nozzle or elsewhere on the extinguisher, the container shall be replaced with a new one and the extinguisher shall be properly serviced or the extinguisher shall be replaced with another approved extinguisher.

(g) Fire extinguishers shall be at all times kept in a condition for immediate and effective use, and shall be so placed as to be readily accessible.

#### Section 2. Backfire Flame Control.

(a) *Applicability.* - This section applies to every gasoline engine installed in a motorboat or motor vessel after April 25, 1940, except outboard motors.

(b) Installations made before November 19, 1952, need not meet the detailed requirements of this section and may be continued in use as long as they are serviceable and in good condition. Replacements shall meet the applicable requirements of this section.

(c) Installations consisting of backfire flame arrestors or engine air and fuel induction systems bearing basic Approval Nos. 162.015 or 162.041 or engine air and fuel induction systems bearing basic Approval Nos. 162.015 or 162.042, may be continued in use as long as they are serviceable and in good condition. New installations or replacements shall meet the applicable requirements of this section.

(d) No person may use a vessel to which this section applies unless each engine is provided with an acceptable means of backfire flame control. The following are acceptable means of backfire flame control:

(1) A backfire flame ~~arrestor~~ arrestor complying with Society of Automotive Engineers (SAE) Standard J-1928 or Underwriters Laboratories (UL) Standard 1111 and marked accordingly. The flame arrestor shall be suitably secured to the air intake with a flame tight connection;

(2) An engine air and fuel induction system which provides adequate protection from propagation of backfire flame to the atmosphere equivalent to that provided by an approved backfire flame ~~arrestor~~ arrestor. A gasoline engine utilizing an air and fuel induction system, and operated without an approved backfire flame ~~arrestor~~ arrestor, shall either include a reed valve assembly or be installed in accordance with SAE Standard J-1928; and

(3) An arrangement of the carburetor or engine air induction system that will disperse any flames caused by engine backfire. The flames must be dispersed to the atmosphere outside the vessel in such a manner that the flames will not endanger the vessel, persons on board, or nearby vessels and structures. Flame dispersion may be achieved by attachments to the carburetor or location of the engine air induction system. All attachments shall be of metallic construction with flametight connections and firmly

secured to withstand vibration, shock, and engine backfire.

(e) No person may use a vessel to which this section applies unless the backfire flame ~~arrester~~ arrestor is serviceable and in good condition.

### Section 3. Ventilation.

(a) *Applicability.* - This section applies to motorboats, motor vessels, and boats used on the waters of this State and subject to this regulation.

(b) No person shall operate a motorboat or motor vessel, except an open boat, built after April 25, 1940, and before August 1, 1980, which uses fuel having a ~~flashpoint~~ flash point of ~~110° F.~~, 110°F. or less, without every engine and fuel tank compartment being equipped with a natural ventilation system. A natural ventilation system consists of:

(1) At least two ventilator ducts, fitted with cowls or their equivalent, for the efficient removal of explosive or flammable gases from the bilges of every engine and fuel tank compartment;

(2) At least one exhaust duct installed so as to extend from the open atmosphere to the lower portion of the bilge and at least one intake duct that is installed to extend to a point at least midway to the bilge or at least below the level of the carburetor air intake; and

(3) The cowls shall be located and trimmed for maximum effectiveness and in such a manner so as to prevent displaced fumes from being recirculated.

(c) Boats built after July 31, 1978, shall be exempt from the requirements of subsection (a) of this section for fuel tank compartments that:

(1) Contain a permanently installed fuel tank if each electrical component is ignition protected in accordance with 33 CFR § 183.410(a); and

(2) Contain fuel tanks that vent to the outside of the motorboat or motor vessel.

(d) Boats built after July 31, 1980, or which are in compliance with the Coast Guard Ventilation Standard, a manufacturer requirement (33 CFR §§ 183.610 and 183.620), shall be exempt from the requirements of subsections (b) and (d) of this section.

(e) No person shall operate a boat after July 31, 1980, that has a gasoline engine for electrical generation, mechanical power or propulsion unless it is equipped with an operable ventilation system that meets the requirements of 33 CFR § 183.610(a), (b), (d), (e) and (f) and 183.6209(a).

(f) Boat owners shall maintain their boats' ventilation systems in good operating condition (regardless of the boat's date of manufacture).

### Section 4. Whistles and Bells.

(a) A vessel of 12 meters (39.4 ft.) or more in length shall be equipped with a whistle and a bell. The whistle and bell shall comply with the specifications in Annex III to the Inland Navigation Rules (33 CFR Part 86). The bell may be

replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.

(b) A vessel of less than 12 meters (39.4 ft.) in length shall be equipped with a whistle or horn, or some other sounding device capable of making an efficient sound signal.

### Section 5. Visual Distress Signals.

(a) *Applicability.* - This section applies to all boats operated on the coastal waters of this State and those waters connected directly to them (i.e., bays, sounds, harbors, rivers, inlets, etc.) where any entrance exceeds 2 nautical miles between opposite shorelines to the first point where the largest distance between shorelines narrows to 2 miles.

(b) *Prohibition.* - Unless exempted by subsection (c) of this section, no person may use a boat to which this section applies unless visual distress signals, approved by the Commandant of the Coast Guard under 46 CFR Part 160 or certified by the manufacturer under 46 CFR Parts 160 and 161, in the number required, are on board. Devices suitable for day use and devices suitable for night use, or devices suitable for both day and night use, shall be carried.

(c) *Exemptions.* - The following boats shall be exempt from the carriage requirements of subsection (b) of this section between sunrise and sunset, but between sunset and sunrise, visual distress signals suitable for night use, in the number required, shall be on board:

(1) Boats less than 16 feet in length;

(2) Boats participating in organized events such as races, regattas, or marine parades;

(3) Open sailboats less than 26 feet in length not equipped with propulsion machinery; and

(4) Manually propelled boats.

(d) *Launchers.* - When a visual distress signal carried to meet the requirements of this section requires a launcher to activate, then a launcher approved by the Coast Guard under 46 CFR § 160.028 shall also be carried. Launchers manufactured before January 1, 1981, which do not have approval numbers are acceptable for use with meteor or parachute signals as long as they remain in serviceable condition.

(e) *Visual distress signals accepted.* - Any of the following signals when carried in the number required, can be used to meet the requirements of this section:

(1) An electric distress light meeting the standards of 46 CFR § 161.013. One is required to meet the night only requirement;

(2) An orange flag meeting the standards of 46 CFR § 160.072. One is required to meet the day only requirement;

(3) Pyrotechnics meeting the standards noted in the following table:

APPROVAL NO. UNDER 46 CFR	DEVICE DESCRIPTION	MEETS REQUIREMENTS FOR	NO. REQUIRED
§ 160.021	Hand-held Red Flares <sup>1</sup>	Day and Night	3
§ 160.022	Floating Orange Smoke	Day Only	3
§ 160.024	Parachute Red Flare <sup>2</sup>	Day and Night	3
§ 160.036	Hand-held Rocket-propelled Parachute Red	Day and Night	3
§ 160.037	Hand-held Orange Smoke	Day Only	3
§ 160.057	Floating Orange Smoke	Day Only	3
§ 160.066	Red Aerial Pyrotechnic Flare <sup>3</sup>	Day and Night	3

- 1 Must have manufacture date of October 1980 or later.
- 2 These signals require use in combination with a suitable launching device.
- 3 These devices may be either meteor or parachute assisted type. Some of these signals may require use in combination with a suitable launching device.

(f) Any combination of signal devices selected from the types noted in paragraphs (e)(1), (2) and (3) of this section, when carried in the number required, may be used to meet both day and night requirements. (The following illustrates the variety and combination of devices which can be carried to meet both day and night requirements: three hand-held red flares; one hand-held red flare and two parachute flares; or three hand-held orange smoke signals with one electric distress light.)

(g) Stowage, serviceability, approval and marking. - No person may use a boat unless the visual distress signals required by this section are:

- (1) Readily accessible;
- (2) In serviceable condition and the service life of the signal, if indicated by a date marked on the signal, has not expired;
- (3) Legibly marked with the approval number or certification statement as specified in 46 CFR Parts 160 and 161; and
- (4) In sufficient quantity as required by the Coast Guard.

(h) Prohibited use. - No person in a boat shall display a visual distress signal on waters to which this section applies under any circumstance except a situation where assistance is needed because of immediate or potential danger to the persons on board.

PART C - Minimum Required Equipment for Recreational-Type Vessels.

#### Section 1. Personal Flotation Devices.

(a) Except as provided in Section 2 of this part, no person may use a recreational vessel unless at least one PFD of the following types is on board for each person:

- (1) Type I PFD;
- (2) Type II PFD; or
- (3) Type III PFD.

(b) No person may use a recreational vessel 16 feet or more in length unless one Type IV PFD is on board in addition to the total number of PFD's PFDs required in subsection (a) of this section.

(c) A Type V PFD may be carried in lieu of any PFD required under subsections (a) and (b) of this section, provided:

(1) The approval label on the Type V PFD indicates that the device is approved:

(a) For the activity in which the vessel is being used; or

(b) As a substitute for a PFD of the Type required in the vessel in use;

(2) The PFD is used in accordance with any requirements on the approval label; and

(3) The PFD is used in accordance with requirements in its owner's manual, if the approval label makes reference to such a manual.

(d) A Type V hybrid PFD may satisfy the carriage requirements provided it is worn except when the boat is not underway or when the user is below deck.

#### Section 2. Exceptions.

(a) Canoes and kayaks 16 feet in length and over are exempted from the requirements for carriage of the additional Type IV PFD required under Section 1(b) of this part.

(b) Racing shells, rowing sculls, racing canoes and racing kayaks are exempted from the requirements for carriage of any Type PFD required under Section 1 of this part.

(c) Sailboards are exempted from the requirements for carriage of any Type PFD required under Section 1 of this part.

#### Section 3. Stowage, Condition, and Marking of PFDs.

(a) No person may use a recreational vessel unless each Type I, II, or III PFD required by Section 1(a) of this part, or equivalent Type allowed by Section 1(c) of this part, is readily accessible.

(b) No person may use a recreational vessel unless each Type IV PFD required by Section 1(b) of this part, or equivalent Type allowed by Section 1(c) of this part, is immediately available.

(c) No person may use a recreational vessel unless each PFD required by Section 2(c) of this part or allowed by

Section 1(b) of this part is:

- (1) In serviceable condition, as defined by 33 CFR § 175.23;
- (2) Of an appropriate size and fit for the intended wearer, as marked on the approval label; and
- (3) Legibly marked with its Coast Guard approval number, as specified in 46 CFR Part 160.

Section 4. Fire-Extinguishing Equipment Required.

(a) Motorboats less than 26 feet in length with no fixed fire extinguishing system installed in machinery spaces shall carry at least one Type B-I approved hand portable fire extinguisher. When an approved fixed fire extinguishing system is installed in machinery spaces, a portable extinguisher is not required. If the construction of the motorboat does not permit the entrapment of explosive or flammable gases or vapors, no fire extinguisher is required.

(b) Motorboats 26 feet to less than 40 feet in length shall carry at least two Type B-I approved hand portable fire extinguishers or at least one Type B-II approved portable fire extinguisher. When an approved fixed fire extinguishing system is installed, one less Type B-I extinguisher is required.

(c) Motorboats 40 feet to not more than 65 feet in length shall carry at least three Type B-I approved hand portable fire extinguishers or at least one Type B-I and one Type B-II approved portable fire extinguisher. When an approved fixed fire extinguishing system is installed, one less Type B-I extinguisher is required.

(d) Motorboats 65 feet and over used for recreational purposes shall carry fire extinguishing equipment as prescribed under Section 3(b) of Part D of this regulation.

(e) Motorboats are required to carry fire extinguishers if any one of the following conditions exist:

- (1) Inboard engines;
- (2) Closed compartments and compartments under seats wherein portable fuel tanks may be stored;
- (3) Double bottoms not sealed to the hull or which are not completely filled with flotation material;
- (4) Closed living spaces;
- (5) Closed stowage compartments in which combustible or flammable materials are stowed; or
- (6) Permanently installed fuel tanks. (Fuel tanks secured so they cannot be moved in case of fire or other emergency are considered permanently installed.)

(f) Motorboats contracted for prior to November 19, 1952, shall meet the applicable provisions of this section insofar as the number and general type of equipment is concerned. Existing items of equipment and installations previously approved but not meeting the applicable requirements for type approval may be continued in service so long as they are in good condition. All new installations and replacements shall meet the requirements of this section.

PART D - Life-Saving Equipment for Commercial Vessels not Documented.

Section 1. Applicability.

This part applies to each vessel to which this regulation applies except:

- (1) Vessels used for ~~non-commercial~~ noncommercial use;
- (2) Vessels leased, rented, or chartered to another for the latter's ~~non-commercial~~ noncommercial use; or
- (3) Commercial vessels propelled by sail not carrying passengers for hire; or
- (4) Commercial barges not carrying passengers for hire.

Section 2. Life Preservers and Other Life-Saving Equipment Required.

(a) No person may operate a vessel to which Section 1 of this part applies unless it meets the requirements of this section.

(b) Each vessel not carrying passengers for hire, less than 40 feet in length, shall have at least one life preserver (Type I PFD), buoyant vest (Type II PFD), or marine buoyant device intended to be worn (Type III PFD), of a suitable size for each person on board. Kapok and fibrous glass life preservers which do not have plastic-covered pad inserts as required by 46 CFR §§ 160.062 and 160.005 are not acceptable as equipment required by this subsection.

(c) Each vessel carrying passengers for hire and each vessel 40 feet in length or longer not carrying passengers for hire shall have at least one life preserver (Type I PFD) of a suitable size for each person on board. Kapok and fibrous glass life preservers which do not have plastic-covered pad inserts as required by 46 CFR §§ 160.062 and 160.005 are not acceptable as equipment required by this subsection.

(d) In addition to the equipment required by subsection (b) or (c) of this section, each vessel 26 feet in length or longer shall have at least one Coast Guard approved ring life buoy.

(e) Each vessel not carrying passengers for hire may substitute an exposure suit (or immersion suit) for a life preserver, buoyant vest, or marine buoyant device required under subsection (b) or (c) of this section. Each exposure suit carried in accordance with this paragraph shall be Coast Guard approved.

(f) On each vessel, regardless of length and regardless of whether carrying passengers for hire, a commercial hybrid PFD may be substituted for a life preserver, buoyant vest, or marine buoyant device required under subsection (b) or (c) of this section if it is:

- (1) In the case of a Type V commercial hybrid PFD, worn when the vessel is underway and the intended wearer is not within an enclosed space;
- (2) Used in accordance with the conditions marked on the PFD and in the owner's manual; and

(3) Labeled for use on uninspected commercial vessels.

(g) The life-saving equipment required by this section shall be legibly marked.

(h) The life-saving equipment designed to be worn required in subsections (b), (c), and (e) of this section shall be readily accessible.

(i) The life-saving equipment designed to be thrown required by subsection (d) of this section shall be immediately available.

(j) The life-saving equipment required by this section shall be in serviceable condition.

### Section 3. Fire-Extinguishing Equipment Required.

#### (a) Motorboats.

(1) Motorboats less than 26 feet in length shall abide by Section 4(a) of Part C of this regulation.

(2) Motorboats 26 feet in length to less than 40 feet in length shall abide by Section 4(b) of Part C of this regulation.

(3) Motorboats 40 feet in length to less than 65 feet in length shall abide by Section 4(c) of Part C of this regulation.

#### (b) Motor Vessels.

(1) Motor vessels less than 50 gross tonnage shall carry one Type B-II approved hand portable fire extinguisher.

(2) Motor vessels 50 and not over 100 gross tonnage shall carry two Type B-II approved hand portable fire extinguishers.

(3) Motor vessels 100 and not over 500 gross tonnage shall carry three Type B-II approved hand portable fire extinguishers.

(4) Motor vessels 500 but not over 1,000 gross tonnage shall carry six Type B-II approved hand portable fire extinguishers.

(5) Motor vessels over 1,000 gross tonnage shall carry eight Type B-II approved hand portable fire extinguishers.

(c) In addition to the hand portable fire extinguishers required by subsection (b) of this section, the following fire-extinguishing equipment shall be fitted in the machinery space:

(1) One Type B-II hand portable fire extinguisher shall be carried for each 1,000 B. H. P. of the main engines or fraction thereof. However, not more than six such extinguishers need be carried.

(2) On motor vessels over 300 gross tons, either one Type B-III semiportable fire-extinguishing system shall be fitted, or alternatively, a fixed fire-extinguishing system shall be fitted in the machinery space.

#### (d) Barges carrying passengers.

(1) Every barge 65 feet in length or less while carrying passengers when towed or pushed by a motorboat,

motor vessel or steam vessel shall be fitted with hand portable fire extinguishers as required by this Section 4 of Part C of this regulation, depending upon the length of the barge.

(2) Every barge over 65 feet in length while carrying passengers when towed or pushed by a motorboat, motor vessel or steam vessel shall be fitted with hand portable fire extinguishers as required by this section, depending upon the gross tonnage of the barge.

### BR-10. BOAT RAMPS AND PARKING LOTS ADMINISTERED BY DIVISION.

#### Section 1. Applicability.

This regulation applies to boat ramps, parking lots, and seawalls or other mooring facilities administered by the Division.

#### Section 2. Boat Ramps and Mooring Facilities.

(a) Whoever uses a boat ramp, seawall, or other mooring facility shall do so on a first-come, first-serve basis.

(b) No person shall leave a vessel unattended at any seawall or other mooring facility. Disabled vessels shall clear the area as soon as possible.

(c) No person shall use any seawall or other mooring facility except for vessels loading and unloading and as a holding area for vessels waiting to use boat ramps.

(d) No person shall moor or conduct repairs to a vessel in any area which interferes with vessel traffic at a boat ramp. Ramp space shall be kept clear at all times for usage of vessels being launched or recovered.

(e) Vessels left abandoned at any seawall or other mooring facility or found adrift shall be removed at the owner's expense. Vessels left unattended at any seawall or other mooring facility in excess of 48 hours without contacting the Division or a Fish and Wildlife Agent shall be deemed abandoned.

#### Section 3. Parking Lots.

(a) No person shall park a vehicle or boat trailer in an undesignated parking space.

(b) No person shall park, stop, or stand a vehicle or boat trailer in front of a boat ramp except in designated areas.

(c) No person shall park a vehicle or boat trailer in such a manner as to impede traffic.

(d) No person shall camp overnight in a parking lot.

(e) No person shall abandon a vehicle or boat trailer in a parking lot. If a vehicle or boat trailer is abandoned, it will be removed at the owner's expense. Vehicles or boat trailers left unattended in a parking lot for in excess of 48 hours without contacting the Division or a Fish and Wildlife Agent shall be deemed abandoned.

(f) Operators of emergency vehicles shall have priority

over all other vehicles. Vessel operators shall clear passage for emergency vehicles on their approach or when directed by an enforcement officer.

#### BR-11. NAVIGATION LIGHTS.

##### Section 1. Applicability.

(a) Except for vessels used by enforcement officers for law enforcement purposes, this regulation applies to all vessels used on the waters of this State.

(b) Vessels over 20 meters (65.6 ft.) in length and vessels listed below shall display lights and exhibit shapes in accordance with the International or Inland Navigation Rules and Annexes (Commandant Instruction M16672.2C):

- (1) Vessels towing, pushing, or being towed or pushed;
- (2) Vessels engaged in fishing;
- (3) Vessels not under command;
- (4) Vessels restricted in their ability to maneuver;
- (5) Pilot vessels; or
- (6) Air-cushion vessels.

##### Section 2. Visibility of lights.

The lights required by this section shall have an intensity so as to be visible at the following ranges:

(1) In a vessel of 12 meters (39.4 ft.) or more in length but less than 50 meters (164 ft.) in length:

- (a) a masthead light, 5 miles; except that where the length of the vessel is less than 20 meters (65.6 ft.), 3 miles;
- (b) a sidelight, 2 miles;
- (c) a sternlight, 2 miles;
- (d) a towing light, 2 miles;
- (e) a white, red, green or yellow all-round light, 2 miles; and
- (f) a special flashing light, 2 miles.

(2) In a vessel of less than 12 meters (39.4 ft.) in length:

- (a) a masthead light, 2 miles;
- (b) a sidelight, 1 mile;
- (c) a sternlight, 2 miles;
- (d) a towing light, 2 miles;
- (e) a white, red, green or yellow all-round light, 2 miles; and
- (f) a special flashing light, 2 miles.

##### Section 3. Prohibition.

(a) No person may use a vessel to which this regulation applies without carrying and exhibiting the lights required in Section 4 of this regulation and of the intensity required in Section 2 of this regulation:

- (1) When underway or at anchor;
- (2) In all weathers from sunset to sunrise; and
- (3) During times of restricted visibility.

(b) No person may use a vessel to which this regulation applies which exhibits other lights which may be mistaken for those required in Section 4 of this regulation during such time as navigation lights are required.

(c) No person may use a vessel to which this regulation applies unless it carries and exhibits the light or day shapes required in the International or Inland Navigational Rules and Annexes (Commandant Instruction M16672.2C) for vessels used under special circumstances defined therein.

##### Section 4. Navigation Lights Required.

(a) Power-driven vessels underway in international and inland waters shall exhibit:

- (1) A masthead light forward;
- (2) A second masthead light abaft of and higher than the forward one; except that in inland waters a vessel of less than 50 meters (164 ft.) in length shall not be obliged to exhibit such light but may do so;
- (3) Sidelights; and
- (4) A sternlight.

(b) Power-driven vessels underway in international waters:

(1) Power-driven vessels of less than 12 meters (39.4 ft.) in length may in lieu of the lights prescribed in subsection (a) of this section exhibit an all-round white light and sidelights;

(2) Power-driven vessels of less than 7 meters (23 ft.) in length whose maximum speed does not exceed 7 knots may in lieu of the lights prescribed in subsection (a) of this section exhibit an all-round white light and shall, if practicable, also exhibit sidelights; and

(3) The masthead light or all-round white light on a power-driven vessel of less than 12 meters (39.4 ft.) in length may be displaced from the fore and aft centerline of the vessel if centerline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the fore and aft centerline of the vessel or located as nearly as practicable in the same fore and aft line as the masthead light or the all-round white light.

(c) Power-driven vessels underway in inland waters shall exhibit the same light for vessels in subsection (a) of this section except:

(1) A vessel of less than 12 meters (39.4 ft.) in length may, in lieu of the lights prescribed in subsection (a) of this section, exhibit an all-round white light and sidelights.

(2) A vessel of less than 20 meters (65.6 ft.) in length need not exhibit the masthead light forward of amidships but shall exhibit it as far forward as practicable.

(d) Sailing vessels underway and vessels under oars in international and inland waters:

- (1) A sailing vessel underway shall exhibit:
  - (a) Sidelights; and
  - (b) A sternlight; sternlight.

(2) In a sailing vessel of less than 20 meters (65.6 ft.) in length, the lights prescribed in paragraph (d)(1) of this section may be combined in one lantern carried at or near the top of the mast where it can best be seen.

(3) A sailing vessel underway may, in addition to the lights prescribed in paragraph (d)(1) of this section, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower being green, but these lights shall not be exhibited in conjunction with the combined lantern permitted in paragraph (d)(2) of this section.

(4) A sailing vessel of less than 7 meters (23 ft.) in length shall, if practicable, exhibit the lights prescribed in paragraph (d)(1) or (2) of this section, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(5) A vessel under oars may exhibit the lights prescribed in this section for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.

(6) A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it can best be seen a conical shape, apex downward. When upon inland waters, a vessel of less than 12 meters (39.4 ft.) in length is not required to exhibit this shape.

(e) Anchored vessels:

(1) *International and Inland.* - Vessels at permanent moorings are not required to display an anchor light.

(2) *International and Inland.* - A vessel of less than 50 meters (164 ft.) in length at anchor shall exhibit an all-round white light where it can best be seen or:

(a) In the fore part, an all-round white light or one ball; and

(b) At or near the stern and at a lower level than the light prescribed in subparagraph (2)(a) of this subsection, an all-round white light.

(3) *Inland.* - A vessel of less than 7 meters (23 ft.) in length, when at anchor, not in or near a narrow channel, fairway, anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shapes prescribed in paragraph (d)(2) of this section.

## BR-12. ANCHORING AND OBSTRUCTING NAVIGATION.

### Section 1. Applicability.

This regulation applies to all vessels or other objects used or placed on the waters of this State.

### Section 2. Anchoring.

(a) No person shall anchor a vessel or other object in a

navigable channel or allow any equipment from an anchored vessel to extend into the channel and subsequently interfere with the passage of any other vessel.

(b) No person shall anchor a vessel in such a manner as to obstruct or otherwise obscure navigation aids.

(c) No person shall anchor a vessel or allow any equipment from an anchored vessel to obstruct or otherwise interfere with the passage or of any other vessel near:

- (1) A boat launching facility;
- (2) A marina entrance;
- (3) The entrance to any canal or waterway;
- (4) A permanent mooring facility; or
- (5) A vessel docking facility.

(d) No person shall place any item or equipment in a navigable channel so as to obstruct or otherwise impede or interfere with the passage of a vessel.

## APPENDIX A

### ISSUING AUTHORITIES

(a) The state is the issuing authority and reporting authority in:

Alabama	(AL)	Montana	(MT)
American Samoa	(AS)	Nebraska	(NB)
Arizona	(AZ)	Nevada	(NV)
Arkansas	(AR)	New Hampshire	(NH)
California	(CF)	New Jersey	(NJ)
Colorado	(CL)	New Mexico	(NM)
Connecticut	(CT)	New York	(NY)
Delaware	(DL)	North Carolina	(NC)
District of Columbia	(DC)	North Dakota	(ND)
Florida	(FL)	Ohio	(OH)
Georgia	(GA)	Oklahoma	(OK)
Guam	(GM)	Oregon	(OR)
Hawaii	(HA)	Pennsylvania	(PA)
Idaho	(ID)	Puerto Rico	(PR)
Illinois	(IL)	Rhode Island	(RI)
Indiana	(IN)	South Carolina	(SC)
Iowa	(IA)	South Dakota	(SD)
Kansas	(KA)	Tennessee	(TN)
Kentucky	(KY)	Texas	(TX)
Louisiana	(LA)	Utah	(UT)
Maine	(ME)	Vermont	(VT)
Maryland	(MD)	Virginia	(VA)
Massachusetts	(MS)	Virgin Islands	(VI)
Michigan	(MC)	Washington	(WN)
Minnesota	(MN)	West Virginia	(WV)
Mississippi	(MI)	Wisconsin	(WS)
Missouri	(MO)	Wyoming	(WY)

(b) The Coast Guard is the issuing authority and reporting authority in:

Alaska (AK)

The abbreviations following the names of the states listed in the paragraphs (a) and (b) are the two capital letters that must be used in the number format to denote the state of principal use.

#### APPENDIX B

##### ONE YEAR CYCLE

COLOR	YEAR ISSUED	YEAR EXPIRES
Blue	1997	1997
Orange	1998	1998
Green	1999	1999
Red	2000	2000
Blue	2001	2001
Orange	2002	2002

##### THREE YEAR CYCLE

COLOR	YEAR ISSUED	YEAR EXPIRES
<del>Green</del> <u>Blue</u>	1995	1997
<del>Red</del> <u>Orange</u>	1996	1998
<del>Blue</del> <u>Green</u>	1997	1999
<del>Orange</del> <u>Red</u>	1998	2000
<del>Green</del> <u>Blue</u>	1999	2001
<del>Red</del> <u>Orange</u>	2000	2002

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### **DIVISION OF FISH AND WILDLIFE FISHERIES SECTION**

Statutory Authority: 7 Delaware Code,  
Section 903(e)(2)(a) (7 **Del.C.** 903(e)(2)(a))

1. TITLE OF THE REGULATION:

**TIDAL FINFISH REGULATION NO. 10 WEAKFISH  
SIZE LIMITS; POSSESSION LIMITS; SEASONS**

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE  
AND ISSUES:

In order to remain in compliance with the Weakfish Fishery Management Plan, as amended, and to allow the maximum creel limit on weakfish, the daily creel limit and minimum size limit on weakfish for recreational and commercial hook and line fishermen are proposed to be increased from 6 per day at 13 inches to 14 per day at 14

inches. Six weakfish per day at 13 inches minimum size is the conservation equivalent in fishing mortality rate to 14 weakfish per day at 14 inches minimum size. The fishing mortality rate must remain at or below 0.76 with these adjusted size and creel limits for 1999.

The number of days the gill net fishery and the Delaware Bay and Ocean fishery with any fishing equipment other than a hook and line for weakfish must be closed to meet the requirements of the Weakfish Fishery Management Plan remains at 34 days in 1999. The 1998 dates are adjusted to 1999 dates in order that the fishing mortality rate remains at or below the target level of 0.76 in 1999.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

The Department must comply with the management requirements of the Weakfish Fishery Management Plan, as amended, approved by the Atlantic States Marine Fisheries Commission. The total fishing mortality rate for weakfish must remain at or below 0.76 in 1999.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO  
ACT:

7 Del.C. § 903 (e)(2)(a)

5. OTHER REGULATIONS THAT MAY BE  
AFFECTED BY THE PROPOSAL:

None

6. NOTICE OF PUBLIC COMMENT:

Individuals may present their opinions and evidence and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior to 4:30 PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 10 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

7. PREPARED BY:

Charles A. Lesser (302)-739-3441, December 1, 1998

PROPOSED AMENDMENTS TO TIDAL FINFISH  
REGULATION NO. 10 WEAKFISH SIZE LIMITS;  
POSSESSION LIMITS; SEASONS.

Section 1. Amend TIDAL FINFISH REGULATION NO. 10, WEAKFISH SIZE LIMITS; POSSESSION LIMITS; SEASONS in subsection (a) by striking the words "thirteen (13)" as they appear therein and substitute in lieu thereof the words "fourteen (14)".

Further amend TIDAL FINFISH REGULATION NO. 10 in subsections (b),(d),(f) and (g) by striking the words "six (6)" as they appear therein and substitute in lieu thereof

the words "fourteen (14)".

Further amend TIDAL FINFISH REGULATION NO. 10 in subsection (e) by striking the words,

"Beginning at 12:01 AM on May 1, 1998 and ending at midnight on May 10, 1998;  
beginning at 12:01 AM on May 15, 1998 and ending at midnight on May 17, 1998;  
beginning at 12:01 AM on May 22, 1998 and ending at midnight on May 24, 1998;  
beginning at 12:01 AM on May 29, 1998 and ending at midnight on May 31, 1998;  
beginning at 12:01 AM on June 5, 1998 and ending at midnight on June 7, 1998;  
beginning at 12:01 AM on June 12, 1998 and ending at midnight on June 14, 1998;  
beginning at 12:01 AM on June 19, 1998 and ending at midnight on June 21, 1998;  
and beginning at 12:01 AM on June 25, 1998 and ending at midnight on June 30, 1998." and substitute in lieu thereof the words,

"Beginning at 12:01 AM on May 1, 1999 and ending at midnight on May 9, 1999,  
beginning at 12:01 AM on May 14, 1999 and ending at midnight on May 16, 1999,  
beginning at 12:01 AM on May 21, 1999 and ending at midnight on May 23, 1999,  
beginning at 12:01 AM on May 28, 1999 and ending at midnight on May 30, 1999,  
beginning at 12:01 AM on June 4, 1999 and ending at midnight on June 6, 1999,  
beginning at 12:01 AM on June 11, 1999 and ending at midnight on June 13, 1999,  
beginning at 12: 01 AM on June 18, 1999 and ending at midnight on June 20, 1999,  
beginning at 12:01 AM on June 24, 1999 and ending at midnight on June 30, 1999."

#### Section 2.EFFECTIVE DATE

These amendments to TIDAL FINFISH REGULATION NO. 10 shall become effective 30 days from the date the Order adopting these amendments is issued by the Secretary of the Department of Natural Resources and Environmental Control.

#### TIDAL FINFISH REGULATION NO. 10

TIDAL FINFISH REGULATION 10. WEAKFISH SIZE LIMITS; POSSESSION LIMITS; SEASONS.

a) It shall be unlawful for any person to possess weakfish *Cynoscion regalis* taken with a hook and line, that

measure less than ~~thirteen (13)~~ fourteen (14) inches total length.

b) It shall be unlawful for any person to whom the Department has issued a commercial food fishing license and a food fishing equipment permit for hook and line to have more than ~~six (6)~~ fourteen (14) weakfish in possession during the period beginning at 12:01 AM on May 1 and ending at midnight on October 31 except on four specific days of the week as indicated by the Department on said person's food fishing equipment permit for hook and line.

c) It shall be unlawful for any person, who has been issued a valid commercial food fishing license and a valid food fishing equipment permit for equipment other than a hook and line to possess weakfish, lawfully taken by use of such permitted food fishing equipment, that measure less than twelve (12) inches, total length.

d) It shall be unlawful for any person, except a person with a valid commercial food fishing license, to have in possession more than ~~six (6)~~ fourteen (14) weakfish, not to include weakfish in one's personal abode or temporary or transient place of lodging. A person may have weakfish in possession that measure no less than twelve (12) inches, total length, and in excess of ~~six (6)~~ fourteen (14) if said person has a valid bill-of-sale or receipt for said weakfish that indicates the date said weakfish were received, the number of said weakfish received and the name, address and signature of the commercial food fisherman who legally caught said weakfish or a bill-of-sale or receipt from a person who is a licensed retailer and legally obtained said weakfish for resale.

e) It shall be unlawful for any person to fish with any gill net in the Delaware Bay or Atlantic Ocean or to take and reduce to possession any weakfish from the Delaware Bay or the Atlantic Ocean with any fishing equipment other than a hook and line during the following periods of time:

~~"Beginning at 12:01 AM on May 1, 1998 and ending at midnight on May 10, 1998;  
beginning at 12:01 AM on May 15, 1998 and ending at midnight on May 17, 1998;  
beginning at 12:01 AM on May 22, 1998 and ending at midnight on May 24, 1998;  
beginning at 12:01 AM on May 29, 1998 and ending at midnight on May 31, 1998;  
beginning at 12:01 AM on June 5, 1998 and ending at midnight on June 7, 1998;  
beginning at 12:01 AM on June 12, 1998 and ending at midnight on June 14, 1998;  
beginning at 12:01 AM on June 19, 1998 and ending at midnight on June 21, 1998;  
and beginning 12:01 AM on June 25, 1998 and ending at midnight on June 30, 1998."~~

"Beginning at 12:01 AM on May 1, 1999 and ending at

midnight on May 9, 1999,  
beginning at 12:01 AM on May 14, 1999 and ending at  
midnight on May 16, 1999,  
beginning at 12:01 AM on May 21, 1999 and ending at  
midnight on May 23, 1999,  
beginning at 12:01 AM on May 28, 1999 and ending at  
midnight on May 30, 1999,  
beginning at 12:01 AM on June 4, 1999 and ending at  
midnight on June 6, 1999,  
beginning at 12:01 AM on June 11, 1999 and ending at  
midnight on June 13, 1999,  
beginning at 12: 01 AM on June 18, 1999 and ending at  
midnight on June 20, 1999,  
beginning at 12:01 AM on June 24, 1999 and ending at  
midnight on June 30, 1999.”

f) The Department shall indicate on a persons food fishing equipment permit for hook and line four (4) specific days of the week during the period May 1 through October 31, selected by said person when applying for said permit, as to when said permit is valid to take in excess of ~~six (6)~~ fourteen (14) weakfish per day. These four days of the week shall not be changed at any time during the remainder of the calendar year.

g) It shall be unlawful for any person with a food fishing equipment permit for hook and line to possess more than ~~six (6)~~ fourteen (14) weakfish while on the same vessel with another person who also has a food fishing equipment permit for hook and line unless each person's food fishing equipment permit for hook and line specifies the same day of the week in question for taking in excess of ~~six (6)~~ fourteen (14) weakfish.

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1. TITLE OF THE REGULATION:

**TIDAL FINFISH REGULATION NO. 24 FISH POT REQUIREMENTS**

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

Food fish are routinely captured in commercial crab pots or crab dredges. Crab pots and crab dredges are not currently listed as legal fishing equipment to fish for food fish. Rather than require crab pots to be reconstructed to be fish pots as defined in 7 Del.C. §1901(2), crab pots and crab dredges will be legal fishing equipment for taking food fish.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

Authorizing the use of crab pots and dredges as a legal means to take food fish does not authorize the sale of same. A commercial food fishing license is required to sell any food fish regardless of how they are caught.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

7 Del.C. § 903 (e)(1)(c)

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None

6. NOTICE OF PUBLIC COMMENT:

Individuals may present their opinions and evidence and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior to 4:30 PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 24 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

7. PREPARED BY:

Charles A. Lesser (302)-739-3441, December 1, 1998

**PROPOSED AMENDMENT TO TIDAL FINFISH REGULATION NO. 24 FISH POT REQUIREMENTS**

Section 1. Amend TIDAL FINFISH REGULATION No. 24, FISH POT REQUIREMENTS by adding new subsections to read as follows:

“(c) It shall be lawful for a person with a valid commercial crab pot license to take and reduce to possession any food fish caught in his/her commercial crab pots provided said food fish is otherwise legal to possess.

(d) It shall be lawful for a person with a valid commercial crab dredgers license to take and reduce to possession any food fish caught in his/her crab dredge provided said food fish is otherwise legal to possess.”

Section 2.EFFECTIVE DATE

This amendment to TIDAL FINFISH REGULATION No. 24 shall become effective 30 days from the date the Order adopting this amendment is issued by the Secretary of the Department of Natural Resources and Environmental Control.

**TIDAL FINFISH REGULATION NO. 24**

**TIDAL FINFISH REGULATION NO. 24 FISH POT REQUIREMENTS.**

a) It shall be unlawful for any person to fish, set, place, use or tend any fish pot in the tidal waters of this state unless said fish pot has an escape vent placed in a lower corner of the parlor portion of said pot which complies with one of the following minimum sizes: 1.125 inches by 5.75

inches; or a circular vent 2 inches in diameter; or a square vent with sides of 1.5 inches, inside measure. Pots constructed of wooden lathes must have spacing of at least 1.125 inches between one set of lathes.

b) It shall be unlawful for any person to fish, set, place, use or tend any fish pot in the tidal waters of this state unless said fish pot contains a panel (ghost panel) measuring at least 3.0 inches by 6.0 inches affixed to said pot with one of the following degradable materials:

1.) Untreated hemp, jute or cotton string of 3/16 inches diameter or smaller; or

2.) Magnesium alloy timed float release (pop-up devices) or similar magnesium alloy fasteners; or

3.) Ungalvanized or uncoated iron wire of 0.094 inches diameter or smaller.

c) It shall be lawful for a person with a valid commercial crab pot license to take and reduce to possession any food fish caught in his/her commercial crab pots provided said food fish is otherwise legal to possess.

d) It shall be lawful for a person with a valid commercial crab dredgers license to take and reduce to possession any food fish caught in his/her crab dredge provided said food fish is otherwise legal to possess.

1. TITLE OF THE REGULATION:

**TIDAL FINFISH REGULATION NO. 26 AMERICAN SHAD AND HICKORY SHAD CREEL LIMITS.**

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

In order to comply with the Shad and River Herring Fishery Management Plan recently adopted by the Atlantic States Marine Fisheries Commission, a 10 fish creel limit on American shad and Hickory shad is required for recreational fishermen. The Department proposes a new TIDAL FINFISH REGULATION NO. 25 to implement this creel limit.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

The 10 fish/day creel limit applies to an aggregate of American Shad and Hickory Shad.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

7 Del.C. 903 (e)(2)(a),

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None

6. NOTICE OF PUBLIC COMMENT:

Individuals may present their opinions and evidence

and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior to 4:30PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 26 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

7. PREPARED BY:

Charles A. Lesser (302) - 739-3441, December 1, 1998

**PROPOSED TIDAL FINFISH REGULATION NO. 26  
AMERICAN SHAD AND HICKORY SHAD  
CREEL LIMITS.**

Section 1. Enact a new TIDAL FINFISH REGULATION to read as follows:

“TIDAL FINFISH REGULATION No. 26,  
AMERICAN SHAD AND HICKORY SHAD, CREEL  
LIMITS”

(a) It shall be unlawful for any person who does not have a valid commercial food fishing license to have in possession more than an aggregate of ten (10) American shad and Hickory shad at or between the place caught and his/her personal abode or transient place of lodging.

Section 2. EFFECTIVE DATE

This TIDAL FINFISH REGULATION No. 26 shall become effective 30 days from the date the Order adopting this regulation is issued by the Secretary of the Department of Natural Resources and Environmental Control.”

**DEPARTMENT OF PUBLIC SAFETY  
ALCOHOLIC BEVERAGE CONTROL COMMISSION**

Statutory Authority: 4 Delaware Code,  
Section 304(a)(1) (4 **Del.C.** 304(a)(1))

In compliance with 29 Del.C. section 10115, the Commission submits the following:

1. TITLE OF THE REGULATIONS:

Rules of the Delaware Alcoholic Beverage Control Commission

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

The Delaware Alcoholic Beverage Control Commission is proposing to amend Rule 29. The rule as amended provides non-discriminatory procedures for timely notification of prices, post-offs, and quantity discounts of alcoholic liquor offered for sale by Delaware wholesalers to

Delaware retailers and governs related practices.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

None.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

4 Del.C. Chp. 3

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None

6. NOTICE OF PUBLIC COMMENT:

A public hearing on the proposed amendment to Rule 29 will be held on January 26, 1999 at 1:30 p.m. in the third floor conference room of the Commission, Carvel State Building, 820 North French Street, Wilmington, Delaware. The Commission will accept written comments from the public from January 1, 1999 through January 31, 1999. Written comments may be Donald J. Bowman, Sr., Director, Delaware Alcoholic Beverage Control Commission, 820 North French Street, Wilmington, Delaware, 19801. For copies of the proposed regulation, the public should call Joanne Episcopo at (302) 577-5222.

**RULE 29**

**PUBLICATION OF PRICES AND POST-OFFS BY WHOLESALEERS**

I. Purpose

~~The purpose of this rule shall be to promote the public benefits of a competitive, economic environment based upon free enterprise within the Delaware alcoholic liquor industry. It is the intent of the Delaware Alcoholic Beverage Control Commission to promote an equitable system for the efficient distribution of alcoholic liquor in our state and to promote freedom of economic opportunity for all Delaware liquor licensees.~~

~~In furtherance of these goals, this rule is promulgated to provide non-discriminatory procedures for the publishing of prices, post-offs, and quantity discounts of alcoholic liquor offered for sale by Delaware wholesalers to Delaware retailers and to govern related practices.~~

H. Authority

~~The Delaware Alcoholic Beverage Control Commission is authorized pursuant to 4 Del. C., § 304(a)(2), to establish by rules and regulations an effective control of the manufacture, sale, dispensing, distribution, and importation of alcoholic liquor within and into this state. Such rules, however, may not be inconsistent with Title 4 of the Delaware Code or any other law of the State. This rule, therefore, implements and clarifies the grant of authority to the Commission contained in 4 Del. C., § 304(a)(2), to~~

~~control the time, place, and manner in which alcoholic liquor shall be sold or dispensed.~~

~~The need to promulgate this rule was based on testimony received at public hearings and is consistent with the Commission's duty to promulgate rules that serve the public interest and further the objectives of the Liquor Control Act. It is the Commission's finding that a procedure is needed to ensure timely and accurate publication to the industry of all prices, post-offs, and quantity discounts to be offered in a non-discriminatory manner by wholesalers to retailers during specified periods of time.~~

~~The Commission further finds that the orderly publication of prices will benefit the Commission in its duties to effectively control the manufacture, sale, dispensing, distribution and importation of alcoholic liquor within and into this state including the time, place, and manner in which alcoholic liquor shall be sold and dispensed not inconsistent with the Liquor Control Act or any other laws of the State.~~

~~The Commission also finds that the orderly publication of prices and the establishment of procedures governing post-offs and quantity discounts will further the underlying purpose of the Liquor Control Act to provide the people of every community in Delaware with a reasonably convenient opportunity to make a legal purchase of alcoholic liquor.~~

III. 29.1 Definitions

**Price:** Means the amount of money given or set as consideration for the sale of a specified order of alcoholic liquor.

**Post-Off:** Means a reduction in the price regularly charged by wholesalers, as published to the trade, which is sold by wholesalers to licensed retailers.

**Quantity Discount:** Means a reduction in the price regularly charged by wholesalers, as published to the trade, which is sold by wholesalers to licensed retailers and is based on whole or in part on the quantity of alcoholic liquor purchased.

**Monthly Price List:** Means the monthly price listing prepared by, or on behalf of, a Delaware licensed wholesaler for all alcoholic liquor prices, post-offs, and quantity discounts offered for sale to Delaware licensed retailers. The monthly price list shall contain the presumptive price, but may be superseded by any subsequent updated notification issued by the wholesaler, provided the Division is notified of the updated listing.

**Designated Publication:** Means the single publication agreed to be used by the Delaware Alcoholic Beverage Wholesalers Association as the monthly price listing for the

compilation of monthly price lists for all alcoholic liquor prices, post-offs, and quantity discounts offered for sale to Delaware licensed retailers.

**Updated Notification:** Means notification of changes to prices, post-offs and quantity discounts made after the submission of the monthly Price List to the designated publication.

**Wholesaler:** Means licensed Delaware wholesaler.

**Retailer:** Means all establishments licensed by the Commission to sell alcoholic liquor directly to the public.

#### IV. History

Prior to the current revision of Rule 29, the regulation of pricing, post-offs, and tie-in sales were controlled separately by Rules 29, 29.1, and 30, respectively. Quantity discounts from wholesalers to retailers were prohibited by Rules 29 and 29.1. The Commission, by promulgation of this rule, is repealing the prohibition on quantity discounts; however, it is not requiring wholesalers to offer quantity discounts or post-offs. It is the Commission's finding that the offering of quantity discounts is a decision that should be made by each wholesaler.

In addition to removing the ban on quantity discounts, the Commission has consolidated and clarified the remaining provisions of Rules 29, 29.1, and 30 (including the removal of the ninety-day post and hold rule) into the current, revised edition of Rule 29.

#### V. 29. Applicability REGULATION OF PRICES AND POST-OFFS BY WHOLESALERS

This rule regulation shall govern the procedure by which all licensed wholesalers publish notice prices, post-offs, and quantity discounts of alcoholic liquor offered for sale to licensed Delaware retailers. The sale of all alcoholic liquor in Delaware by wholesalers to retailers must conform to the provisions of this rule regulation. In addition, this rule regulation shall govern the procedure by which records relating to post-offs and quantity discounts are maintained.

#### VI. 29.2. Procedures for Providing Notice of Prices, Post-Offs, and Quantity Discounts

A. Every wholesaler, licensed by the Commission to sell alcoholic liquor, shall submit by the eighteenth day of each month a written notice to the designated publication listing all of the alcoholic products they intend to offer for sale during the next calendar month. This notice shall include regular prices, as well as post-offs and quantity discounts if offered.

B. A copy of the aforementioned notice shall also be filed with the Division of Alcoholic Beverage Control when transmitted to the designated publication. There shall be no

~~change, revision, substitution, or addition to the aforementioned price listing notice after the eighteenth day of each month without prior approval of the Commission.~~

C. ~~The duration of the prices set for post-offs and quantity discounts shall be the effective dates listed in the designated publication and shall be five (5) days or more.~~

D. ~~The publisher of the designated publication shall make every reasonable effort to ensure that the publication is transmitted to all subscribers of record in time to be received by them not less than five (5) working days before the effective date of the prices listed in that particular monthly issue of the designated publication.~~

a. Every wholesaler shall prepare a monthly price list of all alcoholic products they intend to offer for sale during the next month. This monthly price list shall include regular prices, as well as post-offs and quantity discounts, if offered. The monthly price list shall be printed in a publication designated by the Delaware Alcoholic Beverage Wholesalers Association not less than five (5) business days prior to the end of the preceding month.

b. A copy of the monthly price list shall also be filed with the Division (via hard copy and/or electronically) when submitted to the designated publication. The prices stated therein shall be the "presumptive price", subject to change, revision, substitution, or addition in accordance with the updated notification procedures set forth herein.

c. In the event of a change in the price from that set forth in the monthly price list, the wholesaler shall provide Updated Notification, to all licensed retailers, and to the Division (via hard copy and/or electronically) Updated notification shall be made by a wholesaler to all licensed retailers via a recorded message, accessible through a toll-free "800" number, which can be accessed by any licensed retailer 24 hours a day to obtain information regarding current pricing of items being offered by the wholesaler. In addition, the wholesaler shall advise the Division of prices offered in the "800" number at the time any change is made to the recorded message.

d. Upon Petition of an interested party, the Commission may approve an alternative procedure(s) for providing notice of prices, post-offs and quantity discounts where the petitioner demonstrates that (1) the alternative method is technologically feasible, (2) will provide sufficient notice of prices, post-offs and quantity discounts to Delaware retailers and to the Commission, and (3) will not harm the public interest.

#### VII. 29.3. Procedures for Providing Notice of Prices for New Products

A. a. Prices of new brands, types, or sizes shall be effective three (3) days after the wholesaler has given the required notice in writing to the trade industry, as follows:

1. By mailing a pricing announcement directly to all retail licensees of the trade by United States mail, or

2. ~~By publication of prices in the designated publication as heretofore described, or By inclusion of prices in the monthly price list submitted to the designated publication as heretofore described, or~~

3. ~~By other means approved by the Commission which are reasonably likely to reach all retail licensees of the trade in a timely manner. By including notice thereof in the form of Updated Notification, as described in 29.2 (c) above.~~

~~B. b.~~ Newly listed or changed prices shall continue from their effective date until changed by the wholesaler in accordance with the procedures established by this ~~rule~~ regulation. The duration of the prices set for post-offs and quantity discounts of new products shall be the effective dates listed in the new product pricing announcement ~~and shall be five (5) days or more, the monthly price list, and/or in the Updated Notification.~~

c. Alternative methods for providing notice of prices for new products may be approved by the Commission in the same manner set forth in paragraph 29.2 (d) of this regulation.

#### ~~VIII. 29.4. Duty of Wholesalers to Fill Orders~~

The procedure and ~~rules~~ regulations for licensed wholesalers who offer post-offs or quantity discounts to licensed retailers shall be as follows:

~~A. a.~~ Licensed wholesalers shall not discriminate among licensed retailers in filling orders for post-offs or quantity discounts. ~~based on the size of the order or the retail licensee's geographic location within the state.~~

~~B.~~ Licensed wholesalers shall not offer post-offs or quantity discounts to licensed retailers unless they are reasonably certain that adequate inventory is either on hand or on order to satisfy anticipated demand during the effective dates of the offering.

~~C. b.~~ Licensed wholesalers must honor the orders placed by licensed retailers for post-offs and quantity discounts in the sequential order in which they are placed, unless excused from doing so by the Commission upon proof of good cause.

~~D. c.~~ If a licensed wholesaler is unable to fill the first order of a retailer for a post off or quantity discount due to the depletion of its stock, the retailer shall have the option of having the order filled when stock is again available at the same price offered during the post-off or quantity discount period, or of purchasing a suitable substitute product of comparable value if the wholesaler chooses to offer a substitute product.

~~E. d.~~ Licensed wholesalers shall deliver all alcoholic liquor products offered for sale as post-offs or quantity discounts to the purchasing licensed retailer within three ~~(3)~~ (5) working days, not including weekends or legal holidays, of the last date that the post-off or quantity discount is offered.

e. Notwithstanding anything within this regulation to the contrary, offers of distressed items in quantities of more

than 10 cases shall be made on a "first come/first serve" basis, subject to the requirement that Updated Notification of such post-off be given. Distressed items, excluding beer, in quantities of 10 cases or less shall not be subject to the Updated Notification requirements of these regulations and may be offered for sale to any retail licensee at the licensed wholesaler's discretion. For purposes of this subsection: 1) a distressed item is an alcoholic beverage product subject to close-out and/or expiration, and 2) "first come/first serve" means that orders for alcoholic beverage products are filled in the sequential order by which the orders are received by the wholesaler.

#### ~~IX. 29.5. Procedure for Recording the Sale of Alcoholic Liquor by Wholesalers~~

Every sale of alcoholic liquor, including post-offs, quantity discounts, and otherwise reduced prices, shall be recorded by the licensed wholesaler on a written invoice or bill of sale containing at a minimum the following:

- ~~A. 1.~~ Name of the wholesaler
- ~~B. 2.~~ Name of the retailer
- ~~C. 3.~~ Date of sale
- ~~D. 4.~~ Quantity of alcoholic liquor sold
- ~~E. 5.~~ Price of alcoholic liquor sold
- ~~F. 6.~~ Brand
- ~~G. 7.~~ Size of container
- ~~H. 8.~~ Date of delivery

The regular price of alcoholic liquor sold at post-off, ~~or~~ quantity discount, or discount pursuant to Section 29.4 (d) above shall also be stated on the bill of sale or invoice, as well as the basis for the discount. All credit(s) associated with the sale of alcoholic liquor must be stated or affixed to the original bills of sale or invoices retained by the licensed retailer and wholesaler.

#### ~~X. 29.6. Tie-In Sales~~

A requirement by a wholesaler that a retailer purchase one product in order to purchase another is prohibited. This prohibition includes combination sales if one or more products may be purchased only in combination with other products and not individually. However, a wholesaler is not prohibited from selling at a special combination price two or more kinds or brands of products to a retailer, provided (a) the retailer has the option of purchasing either or both products at the usual price, and (b) the retailer is not required to purchase any product he or she does not want. As to (a) and (b) above, wholesaler licensees shall not ~~however,~~ be required to sell or deliver beer to a retail licensee in quantities of less than five (5) cases.

#### ~~XI. 29.7. Consortium Buying~~

a. Nothing in this regulation shall be deemed to preclude a wholesaler of alcoholic liquor licensed by the

Delaware Alcoholic Beverage Control Commission from publishing or offering a discount, based upon the quantity of product purchased, to a pool, cooperative, or consortium of two or more licensed retailers, provided that the billing, shipment, transportation, and storage of all related alcoholic liquor conforms with state law and the regulations of the Commission. Similarly nothing in this regulation shall be deemed to require a wholesaler of alcoholic liquor to offer post-offs or quantity discounts.

b. The delivery of all alcoholic liquor purchased by a pool, cooperative, or consortium of retailers, to its members, must be made by the holder of a license issued by the Commission to deliver alcoholic liquor, as required by 4 Del. C., § 701.

~~XH~~ 29.8. Severability

If any part of this regulation is held to be unconstitutional or otherwise contrary to law, then it shall be severed and the remaining portions shall remain in full force and effect.

**PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE  
PROMULGATION OF RULES  
REGARDING THE DISCOUNTS  
FOR INTRASTATE  
TELECOMMUNICATIONS  
AND INFORMATION SERVICES  
PROVIDED TO SCHOOLS AND  
LIBRARIES (OPENED JUNE 17, 1997)

PSC  
REGULATION  
DOCKET NO. 47

ORDER NO. 4984

This 15th day of December, 1998, the Commission finds, determines, and Orders the following:

1. Pursuant to 47 U.S.C. § 254(c) & (h), the Federal Communications Commission (“FCC”) established, in 1997, a federal universal support program for schools and libraries within this country. Under the federal program, telecommunications services, Internet access, and internal wiring are provided to eligible schools and libraries at varying discounts. In turn, the telecommunications carriers and other providers who provide such discounted services are reimbursed with federal universal service support. See 47 C.F.R. §§ 54.500-54.519. Under the FCC’s implementing rules, federal universal support is available for intrastate, as well as interstate supported, services provided to schools and libraries so long as a state establishes discounts for such intrastate services no less than the interstate discounts established by the FCC for interstate

services. 47 C.F.R. § 54.505(e)(1).

2. In PSC Order No. 4555 (July 15, 1997), the Commission, acting pursuant to the authority granted by HJR 9 of the 139th General Assembly (July 9, 1997) (“HJR 9”), adopted a matrix of discounts to govern the prices and rates for supported intrastate telecommunications services provided to eligible schools and libraries. The Commission adopted price discounts equal to those available for interstate services to allow carriers and other providers to be eligible for federal support for both interstate and intrastate services provided to this State’s schools and libraries. At the time of this Order, the federal universal service program for schools and libraries was scheduled to begin July 1, 1997.

3. In PSC Order No. 4601 (Sept. 23, 1997), the Commission promulgated formal regulations to govern the intrastate discounts for Delaware’s schools and libraries. In those regulations, the Commission re-affirmed the discount matrix previously adopted in PSC Order No. 4555. See “Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support” (“S&L Rules”). As the S&L Rules emphasize, the sole purpose for the state rules was to allow telecommunications carriers within this State to receive federal support for both intrastate and interstate services provided to eligible schools and libraries. The rules did not attempt to create any state universal service fund.

4. During the Commission’s consideration of the S&L Rules, several participants suggested that the Commission revisit the rules and the discounts after this State’s schools, libraries, and carriers had experience with the new FCC universal service support program. Thus, Section 1.2 of the S&L Rules presently provides:

1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until December 31, 1998. The Commission may hereafter alter, amend, or repeal these rules and may extend the expiration date for these rules.

5. Since 1997, the FCC has made several changes to the federal universal service program for schools and libraries. These alterations include the funding year cycle and resetting the priorities for disbursing the funds initially collected. Thus, although the window for schools and libraries to initially apply for support opened and closed in the first quarter of 1998, the “first wave” of funding commitments for services provided in the initial, elongated January, 1998 - June, 1999 funding cycle were not announced until late November and early December, 1998.

Several Delaware schools were included in this "first wave" of awards. At the same time, the window is now open for applications to be made for support for services to be provided in the next funding year, July, 1999 through June, 2000. 6.

6. As noted above, in order for carriers and other providers to receive federal support for intrastate services provided to schools and libraries, a state must provide for discounts at least as deep as those prescribed by the FCC for interstate services. In addition, schools and libraries are required to reapply for support each year. Thus, in order not to jeopardize funding commitments granted to Delaware schools and libraries for the current funding cycle, and in order to ensure that Delaware schools and libraries can timely apply for federal universal service support for the 1999-2000 funding year (as well as later years), it is essential that the intrastate discounts set forth in PSC Order No. 4555 and in the S&L Rules continue to be effective past December 31, 1998.

7. Currently, there is insufficient time for the Commission to undertake the notice, comment, and hearing proceedings under 29 Del. C. §§ 10115-10118 prior to amending Section 1.2 of the S&L Rules to remove the expiration date of December 31, 1998. However, the Commission now determines that it should act under the emergency procedures of 29 Del. C. § 10119 and now amend that section to delete the expiration date. By doing so, the Commission will remove any suggestion that the intrastate discounts (and, hence, federal universal support) will lapse after December 31, 1998. The Commission determines that such action is necessary to ensure that Delaware schools and libraries are not denied the opportunity to continue to receive and seek universal service support. In addition, the Commission believes that HJR 9 - which originally allowed the Commission to adopt an intrastate discount matrix without full compliance with the notice, comment, and hearing procedures of 29 Del. C. §§ 1131-35 and ch. 101 - reflects a legislative and gubernatorial desire that the Commission act in a manner which will ensure that Delaware schools and libraries not be hindered in their ability to apply for and receive federal universal service support. Removing the expiration date in the present Section 1.2 - and thus continuing the S&L Rules - will preserve federal support for intrastate services provided to Delaware schools and libraries. Finally, continuation of the rules will not undercut the review process which may have motivated, in part, the inclusion of the expiration date. As noted above, the onset of the federal support program has been marked with some delay and changes. Given that initial funding commitments were not announced until late in 1998, there is, as of now, little significant experience under the federal program which could be used to re-evaluate the S&L rules.

8. Consequently, pursuant to 29 Del. C. § 10119, the Commission amends Section 1.2 of the S&L rules to read as follows:

#### 1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

Such emergency amendment shall become effective seven (7) days from the date of this Order and shall remain in effect for 120 days thereafter, unless the effective period is further extended by the Commission.

9. Contemporaneously, the Commission will also begin the notice, comment, and hearing procedure to amend Section 1.2 on a permanent basis. To that end, the Commission will provide for public notice, the opportunity for comment, and a public hearing.

Now, therefore, **IT IS ORDERED:**

1. That, pursuant to 29 Del. C. § 10119, the Commission hereby amends Section 1.2 of its "Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" (adopted in PSC Order No. 4601 (Sept. 23, 1997)) to read as follows:

#### 1.2 Duration

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

2. That, pursuant to 29 Del. C. § 10119(3), the amendment set forth in paragraph 1 above shall become effective seven (7) days from the date of this Order and shall remain in effect for 120 days thereafter, unless the effective period is further extended by the Commission. Prior to the expiration of such time, the Commission anticipates amending the same section using the procedures set forth in 29 Del. C. §§ 10115-10118.

3. That, pursuant to 29 Del. C. § 10119(5), the Secretary shall provide notice of this amendment by forthwith forwarding a copy of this Order and the Combined Notice attached hereto as Exhibit "A" to the Registrar of Regulations for publication in the next issue of the Delaware Register of Regulations. In addition, the Secretary shall, by United States mail, deliver a copy of this Order and the Combined Notice attached hereto as Exhibit "A" to all persons or entities who previously participated in this docket.

4. That, pursuant to 29 Del. C. § 10119(4), the Commission will receive, consider, and respond to any petitions for reconsideration or revision of the amendment described in paragraph 1. Such petitions should be filed with the Commission on or before January 26, 1999.

5. That the Commission proposes to amend on a permanent basis its "Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" (adopted in PSC Order No. 4601 (Sept. 23, 1997)) by deleting the present Section 1.2 and substituting therefore a new Section 1.2 as set forth in paragraph 1 above. Pursuant to 29 Del. C. §§ 1133 & 10115, the Secretary shall forward the Combined Notice of this proposed amendment, (attached as Exhibit "A" hereto) to the Registrar of Regulations for publication in the Delaware Register of Regulations. In addition, the Secretary shall send, by United States mail, a copy of such Combined Notice to the Division of Public Advocate, the prior participants in this docket, and any other person who has made a written request for advance notice of the Commission's regulation-making proceedings.

6. That the Secretary shall cause the Combined Notice attached hereto as Exhibit "A" to be published in the legal classified section, in two column format, outlined in black, in The News Journal and Delaware State News newspapers on the following dates:

Monday, January 4, 1999 (The News Journal)

Tuesday, January 5, 1999 (Delaware State News)

The Secretary shall file proof of such publication prior to February 16, 1999.

7. That the Commission shall conduct a public hearing on the proposed amendment at the Commission's regularly scheduled meeting on February 16, 1999.

8. That the Commission reserves the jurisdiction and authority to enter such further Orders in this matter as may be deemed necessary or proper.

BY ORDER OF THE COMMISSION:

ATTEST:  
Secretary

**EXHIBIT "A"**

IN THE MATTER OF THE	
PROMULGATION OF RULES	
REGARDING THE DISCOUNTS	
FOR INTRASTATE	
TELECOMMUNICATIONS	PSC
AND INFORMATION SERVICES	REGULATION
PROVIDED TO SCHOOLS AND	DOCKET NO. 47

LIBRARIES (OPENED JUNE 17, 1997) |

**COMBINED NOTICE OF EMERGENCY  
AMENDMENT AND PROPOSED AMENDMENT OF  
RULES PERTAINING TO INTRASTATE  
DISCOUNTS FOR TELECOMMUNICATIONS  
SERVICES AND OTHER ADVANCED SERVICES  
PROVIDED TO SCHOOLS AND LIBRARIES UNDER  
THE FEDERAL UNIVERSAL SERVICE SUPPORT  
PROGRAM**

TO: ALL DELAWARE SCHOOLS AND LIBRARIES,  
TELECOMMUNICATIONS CARRIERS,  
ADVANCED SERVICES PROVIDERS, AND  
OTHER INTERESTED PERSONS

Acting under the provisions of 47 U.S.C. § 254(c) & (h), the Federal Communications Commission ("FCC") established, in 1997, a federal universal support program for schools and libraries. Under the federal program, telecommunications services, Internet access, and internal wiring are provided to eligible schools and libraries at varying discounts. In turn, telecommunication carriers and other providers are reimbursed for providing such discounted services with federal universal service support. See 47 C.F.R. §§ 54.500-54.519. Under the FCC's implementing rules, federal universal support is available for intrastate, as well as for interstate supported, services provided to schools and libraries if a state establishes discounts for intrastate services as deep as the interstate discounts established by the FCC for interstate services. 47 C.F.R. § 54.505(e)(1).

In PSC Order No. 4555 (July 15, 1997), the Public Service Commission ("the Commission") adopted a matrix of discounts to govern intrastate telecommunications services provided to eligible schools and libraries under the federal universal service program. The Commission adopted discounts equal to those available for interstate services so that carriers and other providers in Delaware would be eligible to receive federal support for both interstate and intrastate services provided to this State's schools and libraries. Thereafter, by PSC Order No. 4601 (Sept. 23, 1997), the Commission promulgated formal regulations to govern the intrastate discounts for telecommunications services provided to Delaware schools and libraries. In those regulations, the Commission re-affirmed the discount matrix previously adopted in PSC Order No. 4555. See "Interim Rules for the Determination of Intrastate Discounts For Services Provided to Elementary and Secondary Schools and Libraries For Purposes of Receipt of Federal Universal Service Support" ("S&L Rules").

**NOTICE OF EMERGENCY AMENDMENT**

Section 1.2 of the S&L Rules, as originally adopted, read:

**1.2 Duration**

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until December 31, 1998. The Commission may hereafter alter, amend, or repeal these rules and may extend the expiration date for these rules.

On December 15, 1998, in PSC Order No. 4984, the Commission, acting pursuant to 29 Del. C. § 10119, amended Section 1.2 of the S&L Rules to read as follows:

**1.2 Duration**

These rules shall govern the intrastate discounts for services provided by telecommunications carriers to eligible schools and libraries for the period from the effective dates of these rules until further action of the Commission. The Commission may hereafter alter, amend, or repeal these rules.

Such emergency amendment became effective on December 22, 1998 and is to remain effective for 120 days thereafter unless the Commission further extends the effective period. As explained in PSC Order No. 4984, the Commission undertook the emergency amendment in order to foreclose any contention that the S&L rules (and the intrastate discount matrix contained therein) would lapse on December 31, 1998. The Commission determined that continued use of the S&L Rules was necessary in order not to jeopardize present commitments of universal service support for services to Delaware schools and libraries, and in order not to impede Delaware schools and libraries from making applications for support for upcoming funding years.

Pursuant to 29 Del. C. § 10119(4), any person or entity may file a petition for reconsideration or revision of this emergency amendment. The Commission will consider and respond to each such petition. Twelve (12) copies of any such petition shall be filed with the Commission at the address set forth below on or before January 26, 1999.

**NOTICE OF PROPOSED AMENDMENT**

The Commission also proposes to permanently amend Section 1.2 of its S&L Rules to conform to the language in the emergency amendment set forth above. The proposed amendment will delete reference to an expiration date of

December 31, 1998, and allow the S&L Rules to continue until further revised or repealed by the Commission. The Commission has the legal authority to promulgate these rules under the provisions of 47 U.S.C. § 254(h)(1)(B) and 26 Del. C. §§ 201 & 703(3). The proposed amendment to Section 1.2 will allow Delaware schools and libraries to continue to be eligible for federal universal service support for intrastate telecommunications services.

Persons may present their views on the proposed amendment by filing comments with the Commission on or before February 3, 1999. Twelve (12) copies of such comments should be submitted to the Commission at the following address:

Delaware Public Service Commission  
Attn: PSC Regulation Docket No. 47  
861 Silver Lake Boulevard  
Cannon Building, Suite 100  
Dover, Delaware 19904

Only persons who submit written comments, or who have previously participated in this docket, will receive notice of any further proceedings.

In addition, the Commission will conduct a public hearing on the proposed amendment during the course of its regularly scheduled meeting on February 16, 1999, beginning at 1:00 PM. Such hearing will be held at the Commission's office at the address located above. At such hearing, persons may submit their views orally and present relevant evidence. The record in this matter will also include the comments received and evidence presented.

The amendment is described above. Copies of the original S&L Rules, the emergency amendment, and the proposed permanent amendment, can be inspected and copied during normal business hours at the Commission's office at the address set out above. The fee for copies of the rules is \$0.25 per page.

Individuals with disabilities who wish to participate in these proceedings should contact the Commission to discuss any auxiliary aids or services needed to facilitate such review or participation. Such contact may be in person, by writing, telephonically, by use of the Telecommunications Relay Service, or otherwise. The Commission Staff is available to respond to questions concerning the above actions. The Commission's toll-free number is (800) 282-8574. Persons may also contact the Commission by either Text Telephone ("TT") or by regular telephone at (302) 739-4247.

Symbol Key

Roman type indicates the text existing prior to the regulation being promulgated. Underlined text indicates new text added at the time of the proposed action. Language which is ~~stricken~~ through indicates text being deleted. [**Bracketed Bold language**] indicates text added at the time the final order was issued. [~~Bracketed stricken through~~] indicates language deleted at the time the final order was issued.

Final Regulations

The opportunity for public comment shall be held open for a minimum of 30 days after the proposal is published in the Register of Regulations. At the conclusion of all hearings and after receipt within the time allowed of all written materials, upon all the testimonial and written evidence and information submitted, together with summaries of the evidence and information by subordinates, the agency shall determine whether a regulation should be adopted, amended or repealed and shall issue its conclusion in an order which shall include: (1) A brief summary of the evidence and information submitted; (2) A brief summary of its findings of fact with respect to the evidence and information, except where a rule of procedure is being adopted or amended; (3) A decision to adopt, amend or repeal a regulation or to take no action and the decision shall be supported by its findings on the evidence and information received; (4) The exact text and citation of such regulation adopted, amended or repealed; (5) The effective date of the order; (6) Any other findings or conclusions required by the law under which the agency has authority to act; and (7) The signature of at least a quorum of the agency members.

The effective date of an order which adopts, amends or repeals a regulation shall be not less than 10 days from the date the order adopting, amending or repealing a regulation has been published in its final form in the Register of Regulations, unless such adoption, amendment or repeal qualifies as an emergency under §10119.

**DEPARTMENT OF  
ADMINISTRATIVE SERVICES  
DIVISION OF PROFESSIONAL REGULATION  
DELAWARE GAMING CONTROL BOARD**

Statutory Authority: 28 Delaware Code  
Section 1122 (28 Del.C. 1122)

ORDER

Pursuant to 29 Del.C. section 10118, the Delaware Gaming Control Board ("Board") hereby issues this order promulgating the proposed amendments to the Board's Bingo, Raffle, and Charitable Gambling Regulations. Following notice and a public hearing held on November 5, 1998 on the proposed amendments, the Board makes the following findings and conclusions:

**SUMMARY OF EVIDENCE AND INFORMATION  
SUBMITTED**

1. The Board posted public notice of the proposed rule amendments in the Register of Regulations and in the News-Journal and Delaware State News.

2. The Board received no written comments from the public. The Board did receive a number of public comments at the public hearing, most of which concerned the proper procedure for the play of "cookie-jar" bingo. The Board's

proposed bingo regulations in section 1.01(13) contain a definition for the term "cookie jar bingo." The term "cookie jar bingo" is used in the recent amendment to the bingo statutes, House Bill 508, 71 Del. Laws 444 (1998).

3. Many members of the public questioned whether House Bill 508 permits a bingo licensee to start a second cookie jar bingo when the first jar reaches the \$500 limit allowed by statute. There were also questions about which cookie jar bingo should be awarded first in the event of multiple jars being held by a licensee. Several bingo operators described different versions of games used to award the cookie jar prize. Some licensees require that the player receive a number at the beginning of the evening and then bingo on that number in order to win the jar prize. Another licensee uses a special alert ball to determine the next winner of the cookie jar.

4. A bingo operator raised the issue about whether the Board would require special record keeping for the inducements permitted under 28 Del. C. §1139(h)(3) as amended. The recent amendment to §1139(h)(3) now allows bingo licensees to offer inducements limited to 15% of the total amount of all other prizes offered or given during the bingo event.

5. A bingo licensee raised a concern about section 1.02(2) of the proposed bingo regulations. This proposed regulation provides in part that the applicant must list all

promotional give away events on the bingo application. The licensee questioned whether this requirement applied to inducements provided under §1139(h)(3).

#### FINDINGS OF FACT

6. The public was given notice and an opportunity to provide the Board with comments in writing and by oral testimony on the proposed amendments to the Board's Rules. The Board received no public written comments in response to the proposed rules. The oral comments received at the public hearing are described in paragraphs #2-5.

7. The Board received no comments on the proposed amendments to the Raffle and Charitable Gambling Regulations. Most of these revisions are minor, technical revisions to ensure compliance with the Delaware statutes in 28 Del.C. chapter 11. The Board finds these amendments to the Raffle and Charitable Gambling Regulations to be necessary and proper for the regulation of these forms of charitable gambling. The Board adopts these Regulations as proposed.

8. The Board received a number of public comments concerning the proposed Bingo Regulations. For the most part, the proposed bingo amendments reorganize the existing regulations for ease of reference. The proposed Bingo Regulations also incorporate the recent amendment to the bingo statutes in 28 Del.C. chapter 11 to ensure uniformity between the bingo statutes and regulations.

9. The Board does find the public comment regarding proposed section 1.02(2) of the Bingo Regulations to warrant a slight revision. This section requires that bingo applicants list the promotional giveaways on the bingo application. This regulation only refers to the promotional giveaways permitted under 28 Del.C. §1139(h)(2). This regulation does not refer to the types of inducements and cookie jar bingo games that are permitted by the recent bingo amendment in House Bill 508, 71 Del. Laws 444 (1998). The Board will revise section 1.02(2) of the proposed Bingo Regulations to reference the specific statutory section, §1139(h)(2), applicable to the promotional giveaways. The Board does not find this slight revision to be substantive under 29 Del.C. §10118(c).

10. The Board did receive a number of comments about the possible procedure for the play of cookie jar bingo games. The Board's proposed Bingo Regulations do contain a definition for the term "cookie jar bingo." The Board heard no testimony or evidence that would indicate that its proposed definition for "cookie jar bingo" is inaccurate or incorrect. The new legislation in House Bill 508 does not define this term and the Board's Regulation is necessary to

provide licensees with a useful working definition. The Board will adopt its proposed definition for "cookie jar bingo" in section 1.01(13).

11. The Board's proposed Bingo Regulations did not contain specific rules to govern all of the various possible forms of cookie jar bingo games. Based on the testimony received, the Board believes this issue requires further study. The Board will as soon as possible promulgate additional regulations, as required by 29 Del.C. §10115, to describe specific rules for the cookie jar bingo games.

#### CONCLUSIONS

12. The proposed Regulations for Bingo, Charitable Gambling, and Raffles were promulgated by the Board in accord with its statutory duties and authority as set forth in 28 Del. C. §1138.

13. The Board deems the proposed amendments, with one minor revision to section 1.02(2) to be necessary for the effective enforcement of 28 Del. C. chapter 11 and for the full and efficient performance of its duties thereunder.

14. The Board concludes that the adoption of the proposed regulations would be in the best interests of the citizens of the State of Delaware and necessary to protect the public. The Board, therefore, adopts the proposed amendments to the Bingo, Charitable Gambling, and Raffle Regulations which are attached as exhibit #1 to this order. At the December 3, 1998 meeting, the Board unanimously voted to adopt the Regulations and authorized Chairman Frank Long to issue this Order in accord with the Board's decision.

15. The effective date of this Order shall be ten (10) days from the publication of this Order in the Register of Regulations on January 1, 1999.

IT IS SO ORDERED this 8<sup>th</sup> day of December, 1998.

Frank Long, Chairman  
Gaming Control Board

## Section

- 1.01 Definitions
- 1.02 Applications for Bingo Licenses
- 1.03 Bingo Licenses
- 1.04 Conduct of Bingo
- 1.05 Reports After Games
- 1.06 Suspension & Revocation of Licenses
- [1.07 Severability]**

## 1.01: Definitions

(1) "Bingo Statute." The statutory law concerning bingo, as contained in ~~Chapter 65, 51 laws of Delaware~~ (28 Delaware Code, Section 1101 et. seq.).

(2) "Bingo." A game of chance played for prizes with cards bearing numbers or other designations, five or more in one line, the holder covering numbers as objects similarly numbered are drawn from a receptacle and the game being won by the person who first covers previously designated arrangement of numbers on such a card.

(3) "Equipment." The receptacle and color coded numbered objects to be drawn from it, the master board upon which such objects are placed as drawn, the cards or sheets bearing numbers or other designations to be covered and the objects used to cover them, the boards or signs, however operated, used to announce or display the numbers or designations as they are drawn, public address systems, tables, chairs, and other articles essential to the operation, conduct and playing of bingo.

(4) "Proceeds." The gross income received from all activities engaged in or on occasion when bingo is played, less only such actual expenses incurred as are authorized in the Bingo Statute and these Rules and Regulations.

(5) "Occasion." A single gathering or session at which a series of successive bingo games (regular, special, or otherwise) is played, not to exceed forty (40) in number.

(6) "Qualified Organization." A volunteer fire company, veterans organization, religious or charitable organization, or fraternal society that is operated in a manner so as to come within the provisions of Section 170 of the U.S. Secretary of the Treasury.

(7) "Board." The Delaware Gaming Control Board.

(8) "Districts." Those districts mentioned in Article II, §17A of the Delaware Constitution.

(9) "Member in Charge." A bona fide, active member of the "Qualified Organization" in charge of, and primarily responsible for the conduct of the game on each occasion.

(10) "Game." The game of bingo.

(11) "Color Coded." A different color for each of the five letters of the word "BINGO."

(12) "Instant Bingo." A game of chance played with sealed or covered cards which must be opened in some fashion by the holder such that the cards reveal instantly whether the holder has won a prize. This type of game

includes but is not limited to games commonly known as "rip-offs" or "Nevada pull-tabs."

(13) "Cookie Jar Bingo." A game of chance in which players pay a set fee into a cookie jar or other container and receive a number which entitles the player to entry into a later drawing for the total funds deposited by all other players in the cookie jar or container.

## 1.02: Applications For Bingo License.

(1) Original applications shall be filed upon:

(i) the first application of an organization for a license;

(ii) after the first application and upon a subsequent change in the organization's charter or bylaws; or

(iii) in the event of a subsequent application after a prior refusal, suspension, or revocation by the Board.

(2) Supplemental applications for bingo licenses shall be filed in all instances except those covered by the original application. All promotional give-away events [as defined under 28 Del.C. 1139(h)(2),] must be listed on an applicant's application for licensure, giving the dates of the promotional give-away events. If the event is not listed on the application, no promotional give-away event can be conducted.

(3) All original applications shall be filed with the Secretary of the Board at least six (6) weeks prior to the date of the occasion. All supplemental applications shall be filed fifteen (15) days prior to the first date of the occasion.

(4) No applications (original or supplemental) shall be accepted unless the applicant, at the time of the filing, attaches a check or money order for the full amount of the fees payable by law for each occasion requested. In the event an application is refused by the Board, the application fees shall be refunded in full to the applicant. There shall be a license fee of \$15 for each occasion on which bingo is conducted under a license.

(5) No application shall be received by the Commission unless it clearly shows that the applicant is located in and seeks to conduct the game in a district which has approved the licensing of bingo by referendum, and on premises owned or regularly leased by the applicant. If the applicant desires to conduct games on premises specially leased for the occasion, a separate written request therefor (together with supporting reasons) shall accompany the application. The Board reserves the right to accept or reject any application for the conduct of games on specially leased premises. Organization conducting a Function shall prepare and have available on the premises a list of all persons taking part in the management or operation of the Function. Such list shall be maintained as part of the licensees' records of the Function and shall be made available to any member or agent of the Board or law enforcement officer.

**1.03 Bingo Licenses**

(1) Upon receiving an application, the Board shall make an investigation of the merits of the application. The Board shall consider the impact of the approval of any license application on existing licensees within the applicant's geographical location prior to granting any new license. The Board may deny an application if it concludes that approval of the application would be detrimental to existing licensees.

(2) The Board may issue a license only after it determines that:

(i) The applicant is duly qualified to conduct games under the State Constitution, statutes, and regulations.

(ii) The members of the applicant who intend to conduct the bingo games are bona fide active members of the applicant and are persons of good moral character and have never been convicted of a crime involving moral turpitude.

(iii) The bingo games are to be conducted in accordance with the provisions of the State Constitution, statutes, and regulations.

(iv) The proceeds are to be disposed of as provided in the State Constitution and statutes.

(v) No salary, compensation or reward whatever will be paid or given to any member under whom the game is conducted.

If the findings and determinations of the Board are to the effect that the application is approved, the Secretary shall execute a license for the applicant.

(3) The license shall be issued in triplicate. The original thereof shall be transmitted to the applicant. Two copies shall be retained by the Commission for its files.

(4) If the findings and determinations of the Commission are to the effect that the application is denied, the Secretary shall so notify the applicant by certified mail of the reasons for denial, and shall refund any application fees submitted.

(5) In the event of a request for an amendment of a license, the request shall be promptly submitted to the Commission in writing, and shall contain the name of the licensee, license number, and a concise statement of the reasons for requested amendment. The Commission may grant or deny the request, in its discretion, and may require supporting proof from the licensee before making any determination. The Commission may require the payment of an additional license fee before granting the request. The licensee shall be notified of the Commission's action by appropriate communication, so that the licensee will not be unduly inconvenienced.

(6) No license shall be effective for a period of more than one year from the date it was issued.

(7) No license shall be effective after the organization to which it was granted has become ineligible to conduct bingo under any provision of Article II, §17A of the Delaware Constitution.

(8) No license shall be effective after the voters in any

District designated in Article II, §17A of the Constitution have decided against bingo in a referendum held pursuant to that section and subchapter II of the Bingo Statute.

(9) No bingo licensee licensed prior to July 14, 1998, shall conduct more than ten (10) bingo events in any calendar month and no bingo licensee licensed after the enactment of 71 Del. Laws 444 (July 14, 1998) shall conduct more than one (1) bingo event per week. A bingo licensee who was licensed prior to July 14, 1998 whose license lapses for six (6) months or more due to nonrenewal or suspension or any other reason shall, upon licensing thereafter, be considered a licensee licensed after the enactment of 71 Del. Laws 444 (July 14, 1998).

**1.04: Conduct of Bingo.**

(1) The officers of a licensee shall designate a bona fide, active member to be in charge of and primarily responsible for the conduct of the game of chance on each occasion. The member in charge shall supervise all activities on the occasions for which he is in charge and shall be responsible for the making of the required report thereof. The member in charge shall be familiar with the provisions of the Bingo Statute, and these rules and regulations.

(2) The room where any game is being held, operated, or conducted, or where it is intended that any game shall be held, operated, or conducted, or where it is intended that any equipment be used, shall at all times be open to inspection by the appropriate law enforcement officers and agents of the District in which the premises are situated, and to the Board and its agents and employees. Bingo games shall not be commenced prior to 1:30 p.m. and the operation of a function shall be limited to six hours. Instant bingo is permitted during any event sponsored by the organization that is licensed to conduct it, regardless of the day or time.

(3) No person under the age of eighteen (18) shall be permitted in any bingo game, the prize for which is money. No person under the age of 18 shall be permitted to participate in any instant bingo game. No person under the age of sixteen (16) shall participate in any game of bingo nor shall such person conduct or assist in the conduct of the playing of any game of bingo, except that persons no younger than the age of fourteen (14) may act as waiters and waitresses in the handling of food or drinks at an occasion on which a licensee conducts bingo.

(4) No organization licensed prior to enactment of 71 Del. Law 444 (July 14, 1998), may hold, operate, or conduct bingo more often than ten (10) days in any calendar month. No bingo licensee licensed after the enactment of 71 Del. Laws 444 (July 14, 1998) shall conduct more than one bingo event per week. A bingo licensee licensed prior to the enactment of 71 Del. Laws 444 (July 14, 1998), whose license lapses for six (6) months or more due to nonrenewal or suspension or any other reason shall, upon licensing thereafter, be considered a licensee licensed after the

enactment of 71 Del. Laws 444 (July 14, 1998).

(5) The Board and its duly authorized agents and employees may examine the books and records of any licensee, so far as those books and records relate to any transaction connected with the holding, operating, and conducting of the game of bingo, and may examine any manager, officer, director, agent, member, employee, or assistant of the licensee under oath in relation to the conduct of the game of bingo.

~~(6) No license shall provide by contract or other arrangement transportation of patrons to the place where any game of bingo is played. The providing of such transportation by another to the knowledge of the licensee shall be presumed to be the act of the licensee and shall constitute a violation of these Rules and Regulations.~~

(7) No prize greater in an amount or value than \$250 shall be offered or given any single game and the aggregate amount or value of all prizes offered or given in all games played on a single occasion shall not exceed \$1,000. All winners shall be determined and all prizes shall be awarded in any game played on any occasion within the same calendar day as that upon which the game is played. The value of any promotional giveaways, which shall be no more than \$500 per annum to be distributed at an organizational anniversary date and no more than three (3) holiday dates per year, shall not be counted towards the dollar amounts described in this section. However, a licensee may offer inducements, including but not limited to cookie-jar bingo games that do not exceed \$500 per game per night, free refreshments, and free transportation of players to and from bingo events, to attract bingo players to the bingo event, provided that the fair market value of inducements is limited to 15% of the total amount of all other prizes offered or given during the bingo event. Any amounts in any cookie-jar bingo games shall not be included in the limitations of this section or in any prize money limitations.

~~No licensee shall offer, distribute, or give any service or thing of value without charge, other than the prizes awarded in the conduct of a game of bingo.~~

(8) Two or more organizations may not hold games of bingo at the same place on the same day. Unless a bingo licensee has been licensed prior to the enactment of 71 Del. Laws 444 (July 14, 1998), only one licensed organization may hold bingo games in a licensed organization's building during any given week.

(9) No alcoholic beverages shall be permitted in the room from the time the bingo hall opens until the conclusion of the last bingo game of the occasion.

(10) All games shall be conducted with equipment that is owned absolutely by the licensee or that is leased for fees not in excess of those allowable under the Schedule of Rental for leasing of equipment on file with the Board. Equipment shall include playing cards. If the licensee uses cards that are for more than one session of playing bingo,

these cards should be identified as the property of the licensee.

(11) All winners shall be determined and all prizes shall be awarded in any game played on any occasion within the same calendar day as that upon which the game is played.

(12) When more than one player is found to be the winner on the call of the same number in the same game, the designated prize shall be divided equally as possible; and when division is not possible, substitute prizes, whose aggregate value shall not exceed that of the designated prize, shall be awarded; but such substitute prizes shall be of equal value to each other.

(13) The equipment used in the playing of bingo and the method of play shall be such that each card shall have an equal opportunity to be a winner. The objects drawn shall be essentially equal as to size, shape, weight, and balance, and as to all other characteristics that may control their selection, and all shall be present in the receptacle before each game is begun. All numbers shall be announced so as to be visible or audible to all players present.

(14) The particular arrangement of numbers required to be covered in order to win the game shall be clearly described and announced to the players immediately before each game is begun.

(15) No arrangement of numbers shall be required to be covered in order to win the game other than the following:

- a. One unspecified horizontal row;
- b. One unspecified vertical row;
- c. One unspecified full diagonal row;
- d. One unspecified row (horizontal, vertical, or diagonal);
- e. Two or more of the foregoing, forming a specified arrangement;
- f. The entire card;
- g. Four corners;
- h. Eight spaces surrounding the free space.

(16) Within the limits contained in 28 Del. C. §1132(b), alternate prizes may be offered depending upon the number of calls within which bingo is reached, provided the application for the bingo license and the license so specify.

(17) Any player shall be entitled to call for a verification of all numbers drawn at the time a winner is determined, and for a verification of the objects remaining in the receptacle and not yet drawn. The verification shall be made in the immediate presence of the member designated to be in charge on the occasion, but if such member is also the announcer, then in the immediate presence of an officer of the licensee.

(18) No licensee shall conduct more than forty (40) games on a single occasion.

(19) In the playing of bingo, no person who is not physically present in the room where the game is actually conducted shall be allowed to participate as a player in the game.

(20) Within the limits contained in 28 Del. C. §1132(6), the prizes offered may be varied depending upon the number of people who attend the occasion, provided the application for bingo license and license so specify. If a licensee avails itself of the provisions of this rule, it must announce at the beginning of each game the number of people present and the prizes to be awarded.

(21) The entire proceeds of the games of bingo must be used solely for the promotion or achievement of the purposes of the licensee.

(22) Any local rules adopted by the licensee that affect the conduct of the players or the awarding of prizes shall be prominently posted in at least four locations within the area where the bingo games are conducted.

(23) The licensee shall be permitted to reserve seats within the area where the bingo games are conducted to provide for the special needs of handicapped persons, and the licensee shall ensure that the remaining seats are made available to the players on an equal basis.

(24) A licensee may charge an admission fee to a game event in any room or area in which a game is to be conducted. The admission fee shall entitle the game player (a) to a card enabling the player to participate without additional charge in all regular games to be played under the license at the event, or (b) to free refreshments. The licensee may charge an additional fee to a game player for a single opportunity to participate in a special game to be played under license at the event.

(25) No person shall conduct or assist in conducting any game except an active member of the organization to which the license is issued.

(26) No item of expense shall be incurred or paid in connection with the conduct of the game except shall be incurred or paid in connection with the conduct of the game except such as are bona fide items of a reasonable amount for merchandise furnished or services rendered which are reasonably necessary for the conduct of the game.

#### 1.05: Reports After Games

(1) When no game is held on any date when a licensee is authorized to hold such game, a report to that effect shall nonetheless be filed with the Secretary of the Board.

(2) If a licensee fails to file a report within the time required or if a report is not properly verified, or not fully, accurately, and truthfully completed, no further license shall be issued to it and any existing license shall be suspended until such time as the default has been corrected.

#### 1.06 Suspension & Revocation of Licenses

(1) Proceedings to suspend or to revoke a license shall be brought by notifying the licensee of the ground thereof and the date set forth for a hearing thereon. The Commission may stop the operation of a game pending hearing, in which case the hearing must be held within five

(5) days after such action.

(2) When suspension or revocation proceedings are begun before the Commission, it shall hear the matter and make written findings in support of its decision. The licensee shall be informed of the decision and of the effective date of the suspension or revocation.

(3) When a license is suspended or revoked, the licensee shall surrender up the license to the Board on or before that effective date set forth in the notice of decision. In no case shall any license be valid beyond the effective date of suspension or revocation, whether surrendered or not.

(4) Upon finding of the violation of these rules and regulations or the Bingo Statute, such as would warrant the suspension or revocation of a license, the Board may in addition to any other penalties which may be imposed, declare the violator ineligible to conduct a game of bingo and to apply for a license under said law for a period not exceeding thirty (30) months thereafter. Such declaration of the ineligibility may be extended to include, in addition to the violator, any of its subsidiary organizations, its parent organization and any other organization having a common parent organization or otherwise affiliated with the violator, when in the opinion of the Board, the circumstances of the violation warrant such action.

#### 1.07 Severability

If any provision of these Regulations or the application of such provision to any person or circumstances shall be held invalid, the validity of the remainder of these Regulations and the applicability of such provisions to other persons or circumstances shall not be affected thereby.

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### REGULATIONS GOVERNING RAFFLES

#### Section

- 2.01 Definitions
- 2.02 Disclosure
- 2.03 Obligations of the Sponsoring Organization
- 2.04 Record Keeping, Financial Control
- 2.05 Violations of Regulations
- 2.06 Application
- 2.07 Reports After the Drawing
- 2.08 Suspension & Revocation of Licenses
- 2.09 Severability

These regulations shall apply to any raffle conducted under 28 Del. C. §1130 in which the value of the prize or prizes to be awarded is \$5,000 or more or in which the ticket price is \$5.00 or more for a single drawing for prizes, or \$15.00 or more for a series of drawings for prizes occurring on a periodic schedule exceeding one month. These regulations are issued pursuant to the authority granted the

Delaware Gaming Control Board in 28 Del. C. §1122(2).

2.01: Definitions

(1) Prize. Any item or items chosen by a Sponsoring Organization as the subject of a raffle, which the organization announces it will award to a person selected by chance from among those purchasing tickets to the raffle.

(2) Sponsoring Organization. Any veterans, religious, or charitable organization, volunteer fire company or fraternal society as defined in Article II, §17A or §17B of the State Constitution.

(3) Related Party. Includes:

(a) An officer, director, or trustee (or an individual having powers or responsibilities similar to those of officers, directors, or trustees) of the organization.

(b) A spouse other than a spouse who is legally separated from the individual under a decree of divorce or separate maintenance; a child including legally adopted children; grandchildren; parents; and grandparents of parties described in (a) above.

(c) A corporation, trust, estate or partnership more than 35% of which is owned or held by any of the preceding.

(4) Qualified Member. For the purposes of eligibility to participate in managing or otherwise assisting in the operation of raffle, a person is a bona fide member of the licensed organization only when he or she:

(a) Has become a member prior to the commencement of the function and such membership was not dependent upon, or in any way related to the payment or consideration to participate in, any gambling activity; and

(b) Has held full and regular membership status in the licensed organization for a period of not less than three (3) consecutive months prior to the subject function; and

(c) Has paid any reasonable initiation or admission fees for membership, and/or any dues, consistent with the nature and purpose of the licensed organization and with the type of membership obtained and is not in arrears in payment of any such fees or dues; and

(d) Has met all other conditions required by the licensed organization for membership and is in all respects a member in good standing at the time of the subject function; and

(e) Is a bona fide member of a bona fide charitable or bona fide nonprofit organization affiliated with or auxiliary to his or her sponsoring organization, or to which his or her own organization is auxiliary, when he or she meets all of the standards set out above respecting his or her own organization.

(5) Board. The Delaware Gaming Control Board.

(6) Raffle. A form of lottery in which a number of persons buy one or more chances attempting to win the same prize. Any game such as so called "Nevada cards" or "pull cards" where the amount of the prize is determined by the contents of the ticket purchased are not raffles.

2.02: Disclosure

(1) In any raffle conducted pursuant to 28 Del. C. §1130, the sponsoring organization must disclose the following information on the raffle ticket itself:

(a) A full and fair description of the prize;

(b) The appraised value of the prize;

(c) If there is a minimum number of tickets to be sold, what the minimum is and the procedure to be employed to secure a refund in the event the minimum is not reached;

(d) The drawing date for the raffle;

(e) The exact nature of the charitable purpose for which the proceeds will be used.

2.03: Obligations of the Sponsoring Organization.

(1) If for any reason the raffle is not completed and a prize is not awarded on the scheduled drawing date, the sponsoring organization must take all steps necessary to notify ticket purchasers of that fact and return all money received from ticket purchasers within thirty days.

(2) No member or employee, or immediate family member of a member or employee, of a sponsoring organization who has been directly involved in the promotion or operation of a raffle shall be permitted to purchase tickets to the raffle or win the prize. The sale of tickets alone shall not constitute the promotion and operation of a raffle for purposes of this section. Nothing in this section prohibits the award of a prize to a person for selling a winning ticket.

(3) The sponsoring organization shall take such steps as are necessary under the circumstances to insure that each ticket purchaser has a chance to be selected as the prize winner and that prize winner is selected in an entirely random manner.

(4) In cases where the sponsoring organization purchases the prize from a third party, the Board may require that the sponsoring organization arrange for an independent appraisal of the value of the prize from a person licensed to render such appraisals, or if there is no applicable licensing requirement, from a person qualified to render such appraisals.

(5) If the sponsoring organization purchases a prize from a related party, the price to be paid must be at cost or substantially less than the appraised value of the prize.

(6) No sponsoring organization or its employees, members, agents or servants, shall give away tickets to a raffle without receiving the full established price for them unless all members of the public have an equal chance to receive bonus chances or books of chances when buying a certain number of chances or books of chances.

(7) The sponsoring organization shall structure the raffle in such a way that it may reasonably be anticipated that the sponsoring organization will retain a percentage of the gross proceeds which is reasonable under the circumstances and shall retain all of the net proceeds (gross proceeds minus the

direct expenses of the raffle) for the purpose specified in their application under 28 Del. C. §1130.

#### 2.04: Record Keeping, Financial Control.

(1) A record keeper shall be designated from among the members of the organization as defined in 2.01(4) and shall have been a member for a minimum of two (2) years prior to the commencement of the raffle. The record keeper or his designee shall be responsible for the keeping and distribution of raffle tickets to be sold, the safekeeping of paid-for and completed ticket stubs, and the maintenance of the records prescribed by this section during and after the completion or suspension of the raffle for a period of at least two years.

(2) The raffle ticket shall have at least two parts, one of which is to be retained by the purchaser, and the other to be retained by the record keeper. The record keeper's part must at a minimum contain the purchaser's name, address, and telephone number. All such parts shall be imprinted with sequential serial numbers commencing with the numeral "1" through the maximum number of tickets to be sold.

(3) The record keeper shall maintain and periodically update as the need arises, the following types of records:

(a) all documents, bills of sale, agreements, appraisals or other documents concerning the purchase of the article or articles to be raffled;

(b) all permits, licenses, and any other documents prescribed or required by law as necessary for the lawful conduct of a raffle;

(c) a list or access to a list of all persons authorized to sell raffle tickets or participating in any way in the promotion or operation of the raffle. If raffle tickets are given to one person to sell and this person recruits other persons to help sell raffle tickets, the record keeper need only keep a list of those persons to whom the record keeper has directly distributed raffle tickets.

(d) a ledger book or other suitable record keeping device listing the number of tickets distributed, and the number of tickets returned as sold.

(e) the ticket stubs used to conduct the drawing for a period of not less than six months.

(4) Financial records shall be maintained by the record keeper sufficient to show:

(a) the current amount of proceeds received on account of the raffle;

(b) all expenses related to the conduct of the raffle including printing costs, advertising costs, lawyers fees, appraisal costs, insurance premiums, and any other costs reasonably attributable to the raffle.

#### 2.05: Violations of Regulations.

Failure to comply with any of the Regulations shall subject the violator to suspension or revocation of any valid license issued under 28 Del. C. §1130 and criminal prosecution.

#### 2.06: Application.

(a) All applications for a license to conduct a raffle shall be submitted on Form BCC-2 at least six (6) weeks prior to the date of the function. The information supplied must include the name, address, and phone number of the sponsoring organization, the prize to be awarded, the value of the prize, the maximum number of tickets to be sold, the cost of each raffle ticket, the date the prize will be awarded, the exact nature of the charitable purpose for which the proceeds will be used, and the name, address and phone number of the person in charge of the organization, and the person designated to be the record keeper for the raffle.

(b) There shall be a license fee of \$15 for each raffle application submitted to the Board for approval.

(c) The Board shall make an investigation of the qualifications of each applicant and the merits of each application. The Board shall consider the impact, if any, of the approval of a new raffle license application on existing licensees within the applicant's geographical location prior to granting the approval, and may deny the application if it concludes that approval of the application would be detrimental to existing licensees.

(d) The Board may issue a license only after it determines that:

(1) The applicant is duly qualified to conduct raffles under the State Constitution, statutes, and rules and regulations governing raffles; and

(2) The member or members of the applicant who intend to conduct the games are bona fide active members of the applicant and are persons of good moral character and have never been convicted of crimes involving moral turpitude; and

(3) The proceeds are to be disposed of as provided in the State Constitution and statutes; and

(4) No salary, compensation or reward whatever will be paid or given to any member under whom the game is conducted.

(e) No raffle license application shall be effective for a period of more than one year from the date it was issued.

(f) No raffle license shall be effective after the organization to which it was granted has become ineligible to conduct the game under any provision of Article II, §17A or 17B of the State Constitution.

#### 2.07: Reports After the Drawing.

Within fifteen (15) days of the date for awarding the prize as specified in the license application, the record keeper shall furnish in writing to the Board, the name and address of each person to whom a prize was awarded, the gross receipts derived from the selling of raffle tickets, and the total expenses incurred for the raffle.

#### 2.08 Suspension & Revocation of Licenses

(1) Proceedings to suspend or to revoke a license shall

be brought by notifying the licensee of the ground thereof and the date set forth for hearing thereon. The Board may stop the operation of a raffle pending a hearing, in which case the hearing must be held within five (5) days after such action.

(2) The Board shall cause the notice of hearing to be served personally on an officer of the licensee or the member in charge of the conduct of the raffle or to be sent by registered or certified mail to the licensee at the address shown in the license. All hearing procedures shall be subject to the requirements of the Administrative Procedures Act, 29 Del. C. §10131.

(3) When suspension or revocation proceedings are begun before the Board, it shall hear the matter and make written findings in support of its decision. The licensee shall be informed of the decision, and of the effective date of the suspension or revocation.

(4) When a license is suspended or revoked, the licensee shall surrender up the license to the Board on or before that effective date set forth in the notice of the decision. In no case shall any license be valid beyond the effective date of suspension or revocation, whether surrendered or not.

(5) Upon finding of the violation of these rules and regulations or the Delaware statutes, such as would warrant the suspension or revocation of a license, the Board may in addition to any other penalties imposed, declare the violator ineligible to conduct a raffle and to apply for a license under said law for a period not exceeding thirty (30) months thereafter. Such declaration of the ineligibility may be extended to include, in addition to the violator, any of its subsidiary organizations, its parent organization and any other organization having a common parent organization or otherwise affiliated with the violator, when in the opinion of the Board, the circumstances of the violation warrant such action.

#### 2.09: Severability.

If any provision of these Regulations or the application of such provision to any person or circumstances shall be held invalid, the validity of the remainder of these Regulations and the applicability of such provision to other persons or circumstances shall not be affected thereby.

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### REGULATIONS GOVERNING CHARITABLE GAMBLING OTHER THAN RAFFLES

#### Section

- 3.01 Definitions
- 3.02 Licensing
- 3.03 Conduct of Games
- 3.04 Limitation of Participation of Certain Persons
- 3.05 Equipment and Premises

- 3.06 Operation of Games
- 3.07 Prohibited Acts
- 3.08 Limitation of Functions
- 3.09 Record Keeping
- 3.10 Violation of Regulations
- 3.11 Application
- 3.12 Reports After Function
- 3.13 Suspension & Revocation of Licenses
- 3.14 Severability

#### 3.01: Definitions

(1) Sponsoring Organization. Any veterans, religious, or charitable organization, volunteer fire company or fraternal society as defined in Article II, §17A or §17B of the State Constitution.

(2) Net Proceeds is Gross Receipts less license fee, prizes and reasonable and necessary expenses ordinarily incidental to the conduct of a function.

(3) Function is a licensed event of Charitable Gambling maintained and conducted by a Sponsoring Organization for the disposal of awards of merchandise, cash, or its equivalent by means of games as defined in §3.01(7). This includes without limitation thereto, so-called Las Vegas, Casino, or Monte Carlo Nights.

(4) Gross Receipts means the total amount of money or other consideration received as admission fees, income from gambling and except for a bazaar, carnival, festival, or similar affair, from the sale of food and beverages from any one event.

(5) Board. The Delaware Gaming Control Board.

(6) Charitable Gambling. Any game or scheme operated by an organization which has been in existence for two (2) years or longer in which chance is the dominant factor in determining the allocation of a prize, excluding slot machines, roulette, craps, baccarat games, or raffles as defined in the Board's Regulations for Raffles.

(7) Game shall include without limitation card games such as draw poker, stud poker, or blackjack, devices such as big six wheels or similar devices, dice games other than craps, horse racing games, Nevada cards or pull tabs or any other activity similar to these mentioned games approved by the Board.

(8) Instant bingo shall mean any game of chance played with sealed or covered cards which must be opened in some fashion by the holder, such that the cards reveal instantly whether the holder has won a prize. This game includes, but is not limited to games commonly known as "rip-offs" and "Nevada pull-tabs."

#### 3.02: Licensing List Required To Be Kept: Membership List.

Each licensed organization must maintain a list of its current membership by name, address, and a description of the type of membership in the organization which shall be

kept available for inspection at all reasonable times.

**3.03: Conduct of Games.**

(1) Workers.

(a) Member in Charge. Every Licensed Organization shall designate a bona fide, active member of the licensee to be in charge of and primarily responsible for each Function. The member-in-charge shall have been a member in good standing of the Sponsoring Organization for at least two (2) years. The member-in-charge shall supervise all activities and be responsible for the conduct of all games during the Function of which he is in charge, including the preparation of any financial reports required by law or these regulations. The member-in-charge or his qualified designee shall be present on the premises continually during the Function and shall be familiar with the provisions of these Regulations, and the terms of the license.

(b) List of Workers. A Sponsoring Organization conducting a Function shall prepare and have available on the premises a list of all persons taking part in the management or operation of the Function. Such list shall be maintained as part of the licensees' records of the Function and shall be made available to any member or agent of the Board or law enforcement officer.

(c) Participation of Worker Restricted. No person shall assist in the conduct of a Function except a bona fide member of the Sponsoring Organization whose name appears on the lists required by §3.03(1)(b) of these Regulations.

(d) Bona Fide Member. For the purposes of eligibility to participate in managing or otherwise assisting in the operation of a Function, a person is a bona fide member of the Sponsoring Organization only when he or she:

(1) Has become a member prior to the commencement of the Function and such membership was not dependent upon, or in any way related to the payment of consideration to participate in, any gambling activity; and,

(2) Has held full and regular membership status in the Sponsoring Organization for a period of not less than three (3) consecutive months prior to the subject Function; and,

(3) Has paid any reasonable initiation or admission fees for membership, and/or any dues, consistent with the nature and purpose of the Sponsoring Organization and with the type of membership obtained and is not in arrears in payment of any such fees or dues; and,

(4) Has met all other conditions required by the Sponsoring Organization for membership and in all respects is a member in good standing at the time of the subject Function; and,

(5) Has met all of the standards set out above respecting his or her own organization, and he or she is a bona fide member of a bona fide charitable or bona fide nonprofit organization affiliated with or auxiliary to his or

her Sponsoring Organization, or to which his or her own Sponsoring Organization is auxiliary; and,

(6) Has met all of the standards set out above respecting his or her own organization, and this organization has prior to July 6, 1984, assisted the Sponsoring Organization to conduct charitable gambling; and,

(7) Has met all of the standards set out above respecting his or her own Sponsoring Organization, and this organization is assisting another similar Sponsoring Organization (i.e. fire company assisting another fire company; fraternal society assisting another fraternal society; charitable, religious or veterans organization assisting another charitable, religious, or veterans organization) to conduct charitable gambling.

(e) Identification Required. The member-in-charge and those assisting him in any capacity shall possess and display identification.

(f) Officer Responsible for Gross Receipts. The Sponsoring Organization shall duly designate an officer of said organization to be in full charge and primarily responsible for the proper accounting, use and disposition of all Gross Receipts. Such officer's name shall appear on the list required under §3.03(1)(b) and such officer shall be a person other than the person designated member-in-charge pursuant to §3.03(1)(a).

(g) Payment of Workers Prohibited. No commission, salary, compensation, reward, recompense, reimbursement of expenses or gift or other consideration shall be paid directly or indirectly, to any person for conducting or assisting in the conduct of any Function. No tip, gratuity or gift or other consideration shall be given or accepted by any person conducting or assisting in the conduct of a Function either directly or indirectly, and one or more signs prohibiting tipping shall be or more signs prohibiting tipping shall be prominently displayed in each playing area. No person shall solicit or receive any gift or donation or other consideration directly or indirectly on the premises during the conduct of a Function. Nothing in this subsection prohibits any person from sharing food and beverages made available at the functions, or the collection of bar tips for the benefit of the Sponsoring Organization.

**3.04: Limitation of Participation of Certain Persons.**

No person directly or indirectly connected with the manufacture, sale, lease or distribution of gaming equipment or supplies, or the premises where the function is held if the premises are not owned by a Sponsoring Organization, or the agents, servants or employees of such person, shall conduct, participate, advise or assist in the conduct of a Function or render any service to anyone conducting, participating or assisting in the conduct of a Function including preparation of any form relating thereto.

**3.05: Equipment and Premises.**

(1) Ownership of Equipment. The licensed Organization shall conduct games only with equipment owned by it, borrowed from another qualified Sponsoring Organization or which a lessor undertakes to provide by the terms of a written lease. The rental fee contained in such a lease shall be a sum certain and shall be commercially reasonable.

(2) Equipment. Equipment used in the conduct of a bazaar must be maintained in good repair and sound working condition. Equipment shall be used and operated so that each player is given an equal opportunity to win.

(3) The function shall be held on premises owned or regularly leased by the applicant. If the applicant desires to hold the function at other premises, a separate written request therefor (together with supporting reasons), shall accompany the application. The Board reserves the right to accept or reject any application for the conduct of a Function on specially leased or donated premises.

#### 3.06: Operation of Games.

(1) The maximum wager permitted on any game at any function shall be one dollar, except that a five dollar wager shall be permitted in the game of blackjack with doubling allowed and in other card games such as draw poker or stud poker, the maximum ante shall be one dollar and the maximum wager on any card for any draw shall be one dollar with three raises.

(2) House Rules. Prior to conducting a Function, each Licensed Organization shall develop a set of house rules which will govern the type, scope and manner of all games to be conducted. Among other information, these rules shall establish the maximum amount of wagers consistent with these regulations which may be placed by persons participating in games. In addition, the rules shall prohibit the giving of anything of value to any person involved in the management or operation of the Function and prohibit anyone involved in the management or operation of the Function from accepting anything of value. A copy of the rules shall be posted conspicuously on the premises where the Function is being conducted at all times during the occasion, and a copy thereof shall be made available upon request, to any law enforcement officer or agent of the Board. The maximum wager and a no tipping sign shall be displayed at the location of each game, so as to be conspicuous to those persons participating in said games. The rules for the individual games should be available on the premises for review upon request.

(3) Monitoring of Poker Tables. An association which has obtained the proper license to conduct poker shall assign one monitor or dealer per table during the playing of poker.

#### 3.07: Prohibited Acts.

(1) Wagering Among Participants Not Permitted. No Sponsoring Organization shall permit, as part of a Function,

a gambling activity which involves a wagering or other items of value by one participant directly against another participant, if the activity does not provide for some portion of the proceeds to go to the Sponsoring Organization. This rule shall not be construed to prohibit games wholly administered by the Sponsoring Organization wherein the licensee collects wagers from among the participants and determines the winners and amount of prizes on a parimutuel basis.

(2) Credit and Checks. No Sponsoring Organization may extend credit to any patron at a Function. No checks may be cashed for more than \$20 or received by the Sponsoring Organization except for the receipt of checks in the exact amount for any admission charge.

(3) Persons Under Age Eighteen. No person under eighteen years of age shall be permitted on that portion of the premises used for a Function.

(4) Transaction of Certain Business Prohibited. No person who is directly or indirectly connected with the manufacture, sale or distribution of gaming equipment or supplies or his agents, servants or employees may be present during a Function for the transaction of business.

(5) Workers Prohibited From Participating. Workers are prohibited from participating in games at any Function during which they participate as workers except that they may participate during their breaks if they continue to display their identification, except that if a Function is scheduled for more than one day, a worker may participate in games on any day on which he does not participate as a worker.

#### 3.08: Limitation of Functions.

(1) No Sponsoring Organization shall conduct more than one Function in any single calendar month. Charitable games shall not commence prior to 1:30 p.m. The operation of a Function shall be limited to six (6) consecutive hours except as permitted by §3.08(2). Instant bingo is permitted during any event sponsored by the organization that is licensed to conduct it, regardless of the time or time.

(2) When a Function is conducted in conjunction with a bazaar, carnival, festival or similar affair scheduled for more than one day but less than ten consecutive days, the Function shall be considered one licensed event. The games may be operated during the hours when other activities of the bazaar, carnival, festival or similar affair are available to the public.

#### 3.09: Record Keeping.

(1)(a) Record Keeping. Accurate records and books shall be kept by each Sponsoring Organization including but not limited to detailed financial reports of the amount and source of proceeds, the members participating in the promotion and/or operation of the Function, all expenses and disbursements.

(b) Access to Records. Board personnel shall at all

times have access to all books and records of any Sponsoring Organization required by subsection (a).

(c) Period for Retention of Records. All records, books of account, bank statements and all other papers incidental to the operation of events by the Sponsoring Organization shall be retained and available for inspection by Board personnel for a period of two years from the close of the calendar year to which the records apply.

(2) Expenses. Each Sponsoring Organization should incur only those expenses which are reasonable and necessary for the promotion and/or operation of a Function.

### 3.10: Violations of Regulations.

Failure to comply with any of the Regulations shall be deemed a violation of 28 Del. C. chapter 11.

### 3.11: Application.

(a) All applications for a license to conduct a Function shall be submitted on Form BCC-3. The information supplied must include the name, address, and phone number of the Sponsoring Organization, a list of the games to be conducted, the wagering limit on each game, the date and time that the function will be held, the premises where the Function will be held, the owner of the premises, the name, address, and phone number of the designated member in charge and the person responsible for the proper accounting and the exact nature of the charitable purpose for which the proceeds will be used.

(b) There shall be a license fee of \$15 for each occasion upon which the organization wishes to conduct charitable gambling under a license.

(c) There shall be an annual license fee of \$300 for each organization sponsoring instant bingo games.

(d) The Board shall make an investigation of the qualifications of each applicant and the merits of each application. The Board shall consider the impact, if any, of the approval of a new charitable gambling license on existing licensees within the applicant's geographical location prior to granting the approval, and may deny the application if it concludes that approval of the application would be detrimental to existing licensees.

(e) The Board may issue a license only after it determines that:

(1) The applicant is duly qualified to conduct the charitable games under the State Constitution, statutes, and rules and regulations governing charitable gaming; and

(2) The member or members of the applicant who intend to conduct the games are bona fide active members of the applicant and are persons of good moral character and have never been convicted of crimes involving moral turpitude; and

(3) The proceeds are to be disposed of as provided in the State Constitution and statutes; and

(4) No salary, compensation or reward whatever

will be paid or given to any member under whom the game is conducted.

(f) No charitable gambling license shall be effective for a period of more than one year from the date it was issued.

(g) No charitable gambling license shall be effective after the organization to which it was granted has become ineligible to conduct the game under any provision of Article II, §17A or 17B of the State Constitution.

### 3.12: Reports After the Function.

Within thirty (30) days of the last day of the Function, the member-in-charge shall submit a report to the Board stating the amount of Gross Receipts, the Net Proceeds and the list of expenses incurred. This report must indicate the specific charitable purposes for which the proceeds will be used.

### 3.13 Suspension & Revocation of Licenses

(1) Proceedings to suspend or to revoke a license shall be brought by notifying the licensee of the ground thereof and the date set forth for hearing thereon. The Board may stop the operation of a charitable gaming function pending a hearing, in which case the hearing must be held within five (5) days after such action.

(2) The Board shall cause the notice of hearing to be served personally on an officer of the licensee or the member in charge of the conduct of the function or to be sent by registered or certified mail to the licensee at the address shown in the license. All hearing procedures shall be subject to the requirements of the Administrative Procedures Act, 29 Del. C. §10131.

(3) When suspension or revocation proceedings are begun before the Board, it shall hear the matter and make written findings in support of its decision. The licensee shall be informed of the decision, and of the effective date of the suspension or revocation.

(4) When a license is suspended or revoked, the licensee shall surrender up the license to the Board on or before that effective date set forth in the notice of the decision. In no case shall any license be valid beyond the effective date of suspension or revocation, whether surrendered or not.

(5) Upon finding of the violation of these rules and regulations or the Delaware statutes, such as would warrant the suspension or revocation of a license, the Board may in addition to any other penalties imposed, declare the violator ineligible to conduct a raffle and to apply for a license under said law for a period not exceeding thirty (30) months thereafter. Such declaration of the ineligibility may be extended to include, in addition to the violator, any of its subsidiary organizations, its parent organization and any other organization having a common parent organization or otherwise affiliated with the violator, when in the opinion of the Board, the circumstances of the violation warrant such

action.

3.14: Severability.

If any provision of these Regulations or the application of such provision to any person or circumstances shall be held invalid, the validity of the remainder of these Regulations and the applicability of such provision to other persons or circumstances shall not be affected thereby.

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## DEPARTMENT OF AGRICULTURE

### HARNESS RACING COMMISSION

Statutory Authority: 3 Delaware Code,  
Section 10027 (3 Del.C. 10027)

#### ORDER

Pursuant to 29 Del. C. section 10118, the Delaware Harness Racing Commission ("Commission") hereby issues this Order promulgating the proposed amendments to the Commission's Rules. Following notice and a public hearing held on October 22, 1998 on the proposed Rules, the Commission makes the following findings and conclusions:

#### SUMMARY OF EVIDENCE AND INFORMATION SUBMITTED

1. The Commission posted public notice of the proposed rule revisions in the Register of Regulations and in the News-journal and Delaware State News. A copy of the proposed rule amendments is attached to this Order as exhibit #1. The Commission received written comments from the public concerning the proposed regulations. The Commission conducted a public hearing on the proposed Rules on October 22, 1998 and received additional public comments.

2. The State Steward Harold Frazier and Presiding Judge John Frazer submitted written comments on five of the proposed amendments. These racing officials suggested that proposed amendment #1 to Chapter III, Rule I-G-3 be modified to provide for annual appointments for the State Steward and Presiding Judge. on proposed amendment #10 to Chapter VI, Rule III-A-1, the racing officials supported this rule change in order to eliminate last minute confusion and inconvenience of owners when a horse is scratched with only one hour to posttime. The racing officials recommend that the proposed amendment #13 to Chapter VI, Rule II-A-5 remain in its current form except that three races per day be divided into divisions. The racing officials opposed proposed amendment #16 to Chapter III, Rule II-H-2-3. The State Steward did not believe it was reasonable to require written notice for persons whose horses are placed on the

Steward's List. The State Steward also opposed the proposed reduction of placing horses on the Steward's list for only five days instead of the current seven days. Finally, the racing officials opposed proposed amendment #18 to Chapter VI, Rule IIB-9 to eliminate the trailing horse on a half-mile track since there were no safety problems with the current rule at the last Harrington meet.

3. Salvatore DiMario of Delaware Standardbred Owners Association ("DSOA") submitted a written letter that was admitted into evidence regarding the proposed rules and addressed those comments at the public hearing.

4. At the public hearing, the Commission received several comments about the proposed amendments. Salvatore DiMario stated that DSOA opposed proposed amendment #10 to Chapter VI, Rule IIIA-1 that would require the filing of a claiming authorization prior to declaration. DiMario stated that the amendment would prevent the race secretary from trying to solicit a horse to fill a race if there was no claiming authorization on file. DiMario stated that proposed amendment #13 to Chapter VI, Rule II-A-5 would allow the race secretary to seed every race and suggested a limitation on the number of races that could be divided by the race secretary. On proposed amendment #1 to Chapter III, Rule IG-3, DiMario asked that the rule be amended to require race judges to be certified by a national organization.

5. Charles Lockhart of Dover Downs stated that proposed amendment #13 to Chapter VI, Rule II-A-5 could be revised to allow the race secretary to divide four races per day and could only divide a greater number of races with the approval of the horsemen's association.

#### FINDINGS OF FACT

6. The public was given notice and an opportunity to provide the Commission with comments in writing and by oral testimony on the proposed amendments to the Commission's Rules. The oral testimony and written evidence received is described in paragraphs #2-5. The Commission has considered the comments elicited from the public in adopting the final draft of the rules. For the reasons set forth below, the Commission will only adopt a portion of the previously published rules.

7. On proposed amendment #1 to Chapter III, Rule I-G-3, the Commission finds it necessary to amend the rule further as suggested by the State Steward and Presiding Judge in their written comments. The Commission will republish a proposed amendment that provides that the State Steward and Presiding Judge may be appointed on an annual basis. This revision may encourage additional candidates to apply for these positions. The proposed amendment #1 will not be adopted.

8. On proposed amendments #2-5, the Commission received no public comments. This proposed amendments

are simply revisions to the Commission's existing rules that are required by the recent passage of House Bill 745, 71 Del. Laws 414(1998) and will be adopted as proposed.

9. Proposed amendment #6 to Chapter II, Rule X proposes to enact a new section X to set forth the Commission's powers as provided under the recent amendment to 3 Del.C. section 10029(g). This amendment is necessary in order for the Commission's rules to comply with its powers under Title 3, Chapter 100. The proposed rule is revised in the fourth sentence to delete the reference to "thoroughbred racing" and insert the reference to "harness racing" used in section 10029(g). The proposed rule is further revised to reflect the proper statutory sections cited in section 10029(g). The Commission deems this change necessary to conform to the statute and are not substantive changes that require a new proposed rule.

10. Proposed amendments #7 and #8 will be adopted in their proposed forms. The Commission received no comments on these proposed rules that amend the Commission's Rules to conform with the recent passage of 3 Del.C. section 10032.

11. Proposed amendment #9 concerning Delaware owned or bred races is also required by the enactment of section 10032. The Commission received no public comments about the amendment. The proposed version of the amendment is modified to add the following sentence to the end of subsection (c):

"Leased horses are ineligible as Delaware owned entries unless both the lessor and the lessee are Delaware residents as set forth in this Rule and 3 Del. C. section 10032."

This minor revision is necessary to conform to the provisions of the amendment in section 10032 and is not a substantive revision. With this revision, the proposed amendment #9 is adopted by the Commission.

12. Proposed amendment #10 to Chapter VI, Rule III-A-1 would change the time for filing claiming authorizations from one hour before post time to prior to declaration. The Commission does not find this rule is necessary and will not be adopted. There does not appear to be a sufficient problem with the filing of claiming authorizations to require this significant change. The proposed rule could also affect the ability of the race secretary to fill races. The proposed amendment #10 is not adopted.

13. On proposed amendments #11 and 12, the Commission received no public comments. Proposed amendment #11 to Chapter VI, Rule III-C-17 would revise the procedures for the claiming of a horse that tests positive for an illegal substance or is ineligible.- Proposed amendment #12 to Chapter VI, Rule II-B-c would prohibit the racing of horses 15 years or older except in matinee races. Both amendments are necessary to the effective

regulation of harness racing and in the public interest. Proposed amendments #11 and 12 are adopted in their proposed form.

14. Proposed amendment #13 to Chapter VI, Rule II-A-5 would revise the procedure for the selection of races in divisions by the racing secretary. The Commission finds that the proposed rule would possibly allow the racing secretary too much discretion in the selection of starters for races to be divided. The Commission will not adopt this rule in its proposed form and will issue another proposed amendment at a later date.

15. The Commission received no public comments on proposed amendments #14 and #15. Amendment #14 to Chapter VI, Rule II-B-5 clarifies the conditions for non-winners and winners of over \$100. Amendment #15 clarifies the procedure for payment of court reporter costs by licensees filing appeals before the Commission. These amendments are necessary to the Commission's effective enforcement of 3 Del.C. chapter 100 and are adopted in their proposed form.

16. Proposed amendment #16 to Chapter III, Rule II-H-2-3 would revise the procedure for the placing of horses on the Steward's list. The amendment to Chapter III, Rule II-H-2 would require the racing officials to provide written notice to the owner or trainer of a horse that is placed on the Steward's List. The Commission does not find this proposal practical or necessary. The racing officials already provide oral notice to the appropriate party and post a Steward's List at the racetrack. The Commission does find the proposed amendment to Chapter III, Rule II-H-3 advisable in reducing the minimum time on the Steward's List from seven to five days. The amended Rule II-H-3 would still allow a veterinarian to place a horse on the Steward's List for more than five days if the horse is sick or lame. The Commission will adopt the proposed amendment to Chapter III, Rule II-H-3 but not the proposed amendment to Chapter III, Rule II-H-2.

17. Proposed amendment #17 to Chapter VII, Rule I-(F) would revise the procedure for determination of a horse's preference date. The proposed rule would allow a horse racing for the first time after February 1st to have its preference date determined by the date of its first declaration into a purse rate. The Commission finds it would be in the best interests of racing to determine the preference date in such a case by the date of the horse's last qualifying race. The Commission will not adopt this amendment in its proposed form but will issue a new proposal at a later date.

18. Proposed amendment #18 to Chapter VII, Rule II-B-9 would prohibit the use of a trailer horse in races on a half-mile track. The Commission does not find any evidence of a safety problem from the use of trailer horses under such conditions and this proposed amendment is rejected.

19. Proposed amendment #19 to Chapter IV, Rule III-M would require tracks to place a wind gauge and

thermometer in the paddock to calculate the track temperature. The Commission finds the proposed rule unduly restrictive. There are numerous ways in which the track can accurately determine temperature and it is not advisable to require the wind gauge and thermometer to be posted. The Commission will not adopt the proposed amendment but will post a new proposed rule at a later time.

### CONCLUSIONS

20. The proposed rules were promulgated by the Commission in accord with its statutory duties and authority as set forth in 3 Del.C. section 10027.

21. The Commission deems these rules as amended necessary for the effective enforcement of 3 Del.C. chapter 100 and for the full and efficient performance of its duties thereunder.

22. The Commission concludes that the adoption of the proposed rules with the minor amendments set forth above, would be in the best interests of the citizens of the State of Delaware and necessary to insure the integrity and security of the conduct of harness racing in the State of Delaware. A copy of the rules amendments adopted by the Commission are attached as Exhibit #2 and incorporated as part of this Order. The Commission adopts amendments to the following rules:

1. Amend Chapter III, Rule XIV to replace the existing rule in entirety and to now provide a new definition of "Investigator."

2. Amend Chapter III by renumbering Rule XV to provide a new definition of "Administrator of Racing."

3. Amend Chapter III by renumbering the former rule XV to now be Rule XVI.

4. Amend Chapter III, Rule I-A to now provide for a new subsection 16 and renumbering the existing subsection 16.

5. Amend Chapter II by enacting a new section designated as Rule X titled "Commission's Powers."

6. Amend Chapter VI to enact a new Rule I-5 on the Types of Races Permitted.

7. Amend Chapter VI, Rule II-B-1 on Conditions.

8. Amend Chapter VI to enact a new rule VI to provide a definition of "Delaware Owned or Bred Races."

9. Amend Chapter VI, Rule III-C-17 to revise the procedure for the claiming of a horse that tests positive for an illegal substance or is declared ineligible.

10. Amend Chapter VI, Rule II-B-c to prohibit the racing of horse 15 years or older except in

matinee races.

11. Amend Chapter VI, Rule ii-B-5 to clarify the conditions for non-winners and winners of over \$100

12. Amend Chapter X, Rule II-I-2 to clarify the payment of court reporter costs by licensees filing appeals before the Commission.

13. Amend Chapter III, Rule II-H-3 to revise the procedure for horses placed on the Steward's List.

23. The Commission, therefore, adopts these rules as revised and amended pursuant to 3 Del.C. section 10027 and 29 Del.C. section 10113. The Commission has considered the comments and suggestions made by the witnesses at the public hearing.

24. These rules replace in their entirety the former version of the Rules of the Delaware State Harness Racing Commission Rules and Regulations and any subsequent amendments.

25. The effective date of this Order shall be ten (10) days from the publication of this Order in the Register of Regulations on January 1, 1999.

26. Attached hereto and incorporated herein is the amended Rules and Regulations marked as Exhibit #2 and executed simultaneously by this Commission this 1s' day of December, 1997.

Anthony G. Flynn, Chairman  
H. Terry Johnson Commissioner  
Beth Steele, Commissioner  
Mary Ann Lambertson, Commissioner

~~1. [AMEND Chapter III, rule I-G-3 to now provide as follows:~~

#### ~~G. Appointment~~

~~1. A person shall not be appointed to more than one racing official position at a meeting unless specifically approved by the Commission. No person shall be appointed to or hold any such office or position who holds any official relation to any person, association, or corporation engaged in or conducting harness racing within this State. No Commissioner, racing official, steward, or judge whose duty is to insure that the rules and regulations of the Commission are complied with shall bet on the outcome of any race regulated by the Commission or have any financial or pecuniary interest in the outcome of any race regulated by the Commission. All employees appointed under 3 Del. C. §10007(a-e) shall serve at the pleasure of the Commission and are to be paid a reasonable compensation.~~

~~2. The Commission shall appoint or approve the~~

~~State Steward and judges at each harness race meeting. In addition to any minimum qualifications promulgated by the Commission, all applicants for the position of steward must be certified by a national organization approved by the Commission. An applicant for the position of steward or race judge must also have been previously employed as a steward, patrol judge, clerk of scales or other racing official at a harness racing meeting for a period of not less than forty five days during three of the past five years, or have at least five years of experience as a licensed driver who has also served not less than one year as a licensed racing official at a harness racing meeting or have ten years of experience as a licensed harness racing trainer who has also served not less than one year as a licensed racing official at a harness racing meeting.~~

~~3. The Commission may appoint such officers, clerks, stenographers, inspectors, racing officials, veterinarians, and such other employees as it deems necessary, consistent with the purposes of 3 Del. C. Chapter 100.~~

2. AMEND chapter III, rule XIV to replace the existing rule in its entirety and to now provide as follows:

#### XIV. INVESTIGATOR

(a) The Commission may appoint a racing inspector or investigator for each harness racing meet. Such racing inspector shall perform all duties prescribed by the Commission consistent with the purposes of this chapter. Such racing inspector shall have full and free access to the books, records, and papers pertaining to the pari-mutuel system of wagering and to the enclosure or space where the pari-mutuel system is conducted at any harness racing meeting to which he shall be assigned for the purpose of ascertaining whether the holder of such permit is operating in compliance with the Commission's rules and regulations. The racing inspector shall investigate whether such rules and regulations promulgated by the Commission are being violated at such harness race track or enclosure by any licensee, patron, or other person. Upon discovering any such violation, the racing inspector shall immediately report his or her findings in writing and under oath to the Commission or its designee as it may deem fitting and proper. The racing inspector shall devote his full time to the duties of his office and shall not hold any other position or employment, except for performance of similar duties for the Thoroughbred Racing Commission.

(b) Subject to the approval of the Commission, and under the direction of the Administrator of Racing, the

Investigator may be delegated one or more of the following responsibilities:

1. Supervising the licensing function of the Commission, including performing background checks and fingerprinting applicants for licensure, and facilitating the Commission's participation in a uniform, multi-jurisdictional reciprocal licensing scheme;
2. Consulting with track security and with law enforcement agencies both within and outside of Delaware;
3. Supervising the human and equine drug-testing programs provided for in these Rules;
4. Conducting vehicle and stall searches;
5. Intelligence gathering and dissemination;
6. Responding to patron complaints regarding the integrity of racing; and
7. Where appropriate, presenting complaints to the Commission for disposition, including complaints seeking disciplinary action against licensees of the Commission.

3. AMEND chapter III by renumbering rule XV to provide as follows:

#### XV. ADMINISTRATOR OF RACING

The Commission may employ an Administrator of Racing who shall perform all duties prescribed by the Commission consistent with the purposes of this chapter. The Administrator of Racing shall devote his full time to the duties of the office and shall not hold any other office or employment, except that he can perform the same duties as Administrator of Racing for the Thoroughbred Racing Commission. The Administrator of Racing shall be the representative for the Commission at all meetings of the Commission and shall keep a complete record of its proceedings and preserve, at its general office, all books, maps, documents, and papers entrusted to its care. He shall be the executive office of the Commission and shall be responsible for keeping all Commission records and carrying out the rules and orders of the Commission. The Commission may appoint the Administrator of Racing to act as a hearing officer to hear appeals from administrative decisions of the steward or racing judges.

4. AMEND chapter III by renumbering the former rule XV to now be rule XVI to now provide as follows:

#### XVI. ANY OTHER PERSON DESIGNATED BY THE COMMISSION

The Commission may create additional racing official positions, as needed. Persons selected for these positions shall be considered racing officials and shall be subject to the

general eligibility requirements outlined in Section I of this chapter.

5. AMEND Chapter III, rule I-A to now provide for a new subsection 16 and renumbering the existing subsection 16 to now be subsection 17 to provide as follows:

#### I. GENERAL PROVISIONS

##### A. Racing Officials

Officials at a race meeting may include the following, as determined by the Commission:

1. State Steward;
2. board of judges;
3. racing secretary;
4. paddock judge;
5. horse identifier and equipment checker;
6. clerk of the course;
7. official starter;
8. official charter;
9. official timer;
10. photo finish technician;
11. patrol judge;
12. program director;
13. State veterinarian;
14. lasix veterinarian;
15. investigator;
16. Administrator of Racing;
17. any other person designated by the

Commission.

6. AMEND Chapter II, by enacting a new section designated as chapter II, rule X to provide as follows:

#### X. COMMISSION'S POWERS

The Commission shall promulgate administrative regulations for effectively preventing the use of improper devices, the administration of drugs or stimulants or other improper acts for the purpose of affecting the speed or health of horses in races in which they are to participate. The Commission is also authorized to promulgate administrative regulations for the legal drug testing of licensees. The Commission is authorized to contract for the maintenance and operation of a testing laboratory and related facilities, for the purpose of saliva, urine, or other tests for enforcement of the Commission's drug testing rules and regulations. The licensed persons or associations conducting ~~thoroughbred racing~~ harness racing] shall reimburse the Commission for all costs of the drug testing programs established pursuant to this section. Increases in costs of the aforementioned testing program shall be reasonable and

related to expansion in the number of days of racing and the number of races held, the need to maintain competitive salaries, and inflation. The Commission may not unreasonably expand the drug testing program beyond the scope of the program in effect as of June 30, 1998. Any decision by the Commission to expand the scope of the drug testing program that occurs after an administrative hearing, at which the persons or associations licensed under 3 Del. C. §~~10121~~ 10022] consent to such expansion, shall not be deemed an unreasonable expansion for purposes of this section. The Commission, in addition to the penalties contained in 3 Del. C. §~~10125~~ 10026,] may impose penalties on licensees who violate the drug testing regulations including imposition of fines or assessments for drug testing costs.

7. Amend Chapter VI, to enact a new rule I-5 to provide as follows:

#### I. TYPES OF RACES PERMITTED

In presenting a program of racing, the racing secretary shall use exclusively the following types of races:

1. Overnight events which include:
  - a) Conditioned races;
  - b) Claiming races;
  - c) Preferred, individual, handicap, open or free-for-all races;
  - d) Schooling races; and
  - e) Matinee races
2. Added money events which include:
  - a) Stakes;
  - b) Futurities;
  - c) Early closing events; and
  - d) Late closing events
3. Match races
4. Qualifying Races (See Chapter VII -- "Rules of the Race")
5. Delaware-owned or bred races as specified in 3 Del. C. §10032.

8. Amend Chapter VI, rule II-B-1 to now provide as follows:

##### B. Conditions

1. Conditions may be based only on:
  - a) horses' money winnings in a specified number of previous races or during a specified time;
  - b) horses' finishing positions in a specified number of previous races or during a specified period of time;
  - c) age;

- d) sex;
- e) number of starts during a specified period of time;
- f) special qualifications for foreign horses that do not have a representative number of starts in the United States or Canada;
- g) the exclusion of schooling races;
- h) Delaware-owned or bred races as specified in 3 Del. C. §10032; or
- i) any one or more combinations of the qualifications herein listed.

9. Amend Chapter VI, to enact a new rule VI to provide as follows:

**VI. DELAWARE OWNED OR BRED RACES.**

(a) Persons licensed to conduct harness horse racing meets under title 3, chapter 100, may offer non-stakes races limited to horses wholly owned by Delaware residents or sired by Delaware stallions.

(b) For purposes of this rule, a Delaware bred horse shall be defined as one sired by a Delaware stallion who stood in Delaware during the entire breeding season in which it sired a Delaware bred horse or a horse whose dam was a wholly-owned Delaware mare at the time of breeding as shown on the horse's United State Trotting Association registration or eligibility papers. The breeding season means that period of time beginning February 1 and ending August 1 of each year.

(c) All horses to be entered in Delaware owned or bred races must first be registered and approved by the Commission or its designee. The Commission may establish a date upon which a horse must be wholly-owned by a Delaware resident(s) to be eligible to be nominated, entered, or raced as Delaware-owned. In the case of a corporation seeking to enter a horse in a Delaware-owned or bred event as a Delaware-owned entry, all owners, officers, shareholders, and directors must meet the requirements for a Delaware resident specified below. In the case of an association or other entity seeking to enter a horse in a Delaware owned or bred event as a Delaware-owned entry, all owners must meet the requirements for a Delaware resident specified below. [Leased horses are ineligible as Delaware owned entries unless both the lessor and the lessee are Delaware residents as set forth in this Rule and 3 Del.C. section 10032.]

(d) The following actions shall be prohibited for Delaware-owned races and such horses shall be deemed ineligible to be nominated, entered, or raced as Delaware-owned horses:

(i) Payment of the purchase price over time beyond the date of registration;

(ii) Payment of the purchase price through earnings beyond the date of registration;

(iii) Payment of the purchase price with a loan, other than from a commercial lender regulated in Delaware and balance due beyond the date of registration;

(iv) Any management fees, agent fees, consulting fees, or any other form of compensation to non-residents of Delaware, except industry standard training and driving fees;  
or

(v) Leasing a horse to a non-resident of Delaware.

(e) The Commission or its designee shall determine all questions about a person's eligibility to participate in Delaware-owned races. In determining whether a person is a Delaware Resident, the term "resident" shall mean the place where an individual has his or her permanent home, at which that person remains when not called elsewhere for labor or other special or temporary purposes, and to which that person returns in seasons of repose. The term "residence" shall mean a place a person voluntarily fixed as a permanent habitation with an intent to remain in such place for the indefinite future.

(f) The Commission or its designee may review and subpoena any information which is deemed relevant to determine a person's residence, including but not limited to, the following:

(1) Where the person lives and has been living;

(2) The location of the person's sources of income;

(3) The address used by the person for payment of taxes, including federal, state and property taxes;

(4) The state in which the person's personal automobiles are registered;

(5) The state issuing the person's driver's license;

(6) The state in which the person is registered to vote;

(7) Ownership of property in Delaware or outside of Delaware;

(8) The residence used for U.S.T.A. membership and U.S.T.A. registration of a horse, whichever is applicable;

(9) The residence claimed by a person on a loan application or other similar document;

(10) Membership in civic, community, and other organizations in Delaware and elsewhere.

None of these factors when considered alone shall be dispositive, except that a person must have resided in the State of Delaware in the preceding calendar year for a minimum of one hundred and eighty three (183) days. Consideration of all of these factors together, as well as a

person's expressed intention, shall be considered in arriving at a determination. The burden shall be on the applicant to prove Delaware residency and eligibility for Delaware-owned or bred races. The Commission may promulgate by regulation any other relevant requirements necessary to ensure that the licensee is a Delaware resident. In the event of disputes about a person's eligibility to enter a Delaware-owned or bred race, the Commission shall resolve all disputes and that decision shall be final.

(g) Each owner and trainer, or the authorized agent of an owner or trainer, or the nominator (collectively, the "entrant"), is required to disclose the true and entire ownership of each horse with the Commission or its designee, and to disclose any changes in the owners of the registered horse to the Commission or its designee. All licensees and racing officials shall immediately report any questions concerning the ownership status of a horse to the Commission racing officials, and the Commission racing officials may place such a horse on the steward's or judge's list. A horse placed on the steward's or judge's list shall be ineligible to start in a race until questions concerning the ownership status of the horse are answered to the satisfaction of the Commission or the Commission's designee, and the horse is removed from the steward or judge's list.

(h) If the Commission, or the Commission's designee, finds a lack of sufficient evidence of ownership status, residency, or other information required for eligibility, prior to a race, the Commission or the Commission's designee, may order the entrant's horse scratched from the race or ineligible to participate.

(i) After a race, the Commission or the Commission's designee, may upon reasonable suspicion, withhold purse money pending an inquiry into ownership status, residency, or other information required to determine eligibility. If the purse money is ultimately forfeited because of a ruling by the Commission or the Commission's designee, the purse money shall be redistributed per order of the Commission or the Commission's designee.

(j) If purse money has been paid prior to reasonable suspicion, the Commission or the Commission's designee may conduct an inquiry and make a determination as to eligibility. If the Commission or the Commission's designee determines there has been a violation of ownership status, residency, or other information required for eligibility, it shall order the purse money returned and redistributed per order of the Commission or the Commission's designee.

(k) Anyone who willfully provides incorrect or untruthful information to the Commission or its designee pertaining to the ownership of a Delaware-owned or bred horse, or who attempts to enter a horse restricted to

Delaware-owned entry who is determined not to be a Delaware resident, or who commits any other fraudulent act in connection with the entry or registration of a Delaware-owned or bred horse, in addition to other penalties imposed by law, shall be subject to mandatory revocation of licensing privileges in the State of Delaware for a period to be determined by the Commission in its discretion except that absent extraordinary circumstances, the Commission shall impose a minimum revocation period of two years and a minimum fine of \$5,000 from the date of the violation of these rules or the decision of the Commission, whichever occurs later.

(l) Any person whose license is suspended or revoked under subsection (k) of this rule shall be required to apply for reinstatement of licensure and the burden shall be on the applicant to demonstrate that his or he licensure will not reflect adversely on the honesty and integrity of harness racing or interfere with the orderly conduct of a race meeting. Any person whose license is reinstated under this subsection shall be subject to a two year probationary period, and may no participate in any Delaware-owned or bred race during this probationary period. Any further violations of this section by the licensee during the period of probationary licensure shall, absent extraordinary circumstances, result in the Commission imposing revocation of all licensure privileges for a five year period along with any other penalty the Commission deems reasonable and just.

(m) Any suspension imposed by the Commission under this rule shall not be subject to the stay provisions in 29 Del. C. §10144.

10. ~~AMEND Chapter VI, rule III-A-1 to now provide as follows:~~

### ~~III. CLAIMING RACES~~

#### ~~A. General Provisions~~

~~1. No horse will be eligible to start in a claiming race unless the owner has provided written authorization, which must include the minimum price for which the horse may be claimed, to the racing secretary at least one hour prior to post time of its race prior to declaration. If the horse is owned by more than one party, all parties must sign the authorization. Any question relating to the validity of a claiming authorization shall be referred to the judges who shall have the authority to disallow a declaration or scratch the horse if they deem the authorization to be improper.]~~

11. AMEND Chapter VI, rule III-C-17 to now provide as follows:

17. The judges, ~~at the option of the claimant,~~ shall rule a claim invalid:

- a) ~~at the option of the claimant~~ if the official racing chemist reports a positive test on a horse that was claimed, provided such option is exercised within 48 hours following notification to the claimant of the positive test by the judges;
- b) if the horse has been found ineligible to the event from which it was claimed, regardless of the position of the claimant.

12. ~~AMEND Chapter VI, rule II-B-c to now provide as follows:~~

B. Conditions

1. Conditions may be based only on:

- a) horses' money winnings in a specified number of previous races or during a specified previous time;
- b) horses' finishing positions in a specified number of previous races or during a specified period of time;
- c) age, provided that no horse that is 15 years of age or older shall be eligible to perform in any race except in a matinee race;

13. ~~[AMEND Chapter VI, rule II-A-5 to now provide as follows:~~

**H. OVERNIGHT EVENTS**

**A. General Provisions**

~~5. Regularly scheduled races or substitute races may be divided where necessary to fill a program of racing, or may be divided and carried over to a subsequent racing program, subject to the following;~~

- a) ~~No such divisions shall be used in the place of regularly scheduled races which fill.~~
- b) ~~Where races are divided in order to fill a program, starters for each division must be determined by lot after preference has been applied, unless the conditions provide for divisions based upon age, performance, earnings or sex may be determined by the racing secretary.~~
- e) ~~However, where necessary to fill a card, not more than one race per day may be divided into not more than two divisions after preference has been applied. The divisions may be selected by the racing secretary. For all other overnight races that are divided, the division must be lot unless the conditions provide for a division based on performance, earnings or sex.]~~

14. ~~AMEND Chapter VI, rule II-B-5 to now provide as~~

follows:

B. Conditions

5. For the purpose of eligibility, a racing season or racing year shall be the calendar year. All races based on winnings will be programmed as Non-Winners of a multiple of \$100 plus \$1 or Winners over a multiple of \$100 ~~\$301 or Winners over \$1,001.~~ Additional conditions may be added. When recording winnings, gross winnings shall be used and cents shall be disregarded.

15. ~~AMEND Chapter X, rule II-I-2 to now provide as follows:~~

I. Appeals

2. An appeal under this section must be filed with the State Steward not later than 48 hours after the ruling. The appeal must be accompanied by a deposit in the amount of \$250, plus an amount to be determined from time to time by the Commission for the cost of the court reporter's attendance ~~together with a check or money order payable to a court reporter designated by the Commission in an amount charged for the reporter's attendance at and recording of the hearing before the Commission on the appeal.~~ Unless the Commission determines the appeal to be meritorious, either by reversing the decision of the State Steward or judges or by reducing the penalty imposed, the appeal deposit shall not be repaid to the appellant. In no event shall the advance payment of the court reporter's fee be refunded.

16. ~~AMEND Chapter III, rule II-H-2-3 to now provide as follows:~~

H. Steward's List

2. A horse that is unfit to race because it is dangerous, unmanageable or unable to show a performance to qualify for races at the meeting, or otherwise unfit to race at the meeting may be placed on the Steward's List by the Presiding Judge and declarations ~~[and/or entries on said the horse shall be refused. but the owner or trainer shall be notified in writing of such action and the reason as set forth above shall clearly be stated on the notice.~~ The owner or trainer shall be notified of such action and the reason shall be clearly stated.] When any horse is placed on the Steward's List, the Clerk of the Course shall make a note on the eligibility certificate of such horse, showing the date the horse was put on the Steward's List, the reason ~~[therefore,]~~ and the date of removal if the horse has been removed.

3. All horses scratched by a veterinarian for either

lameness or sickness will be put on the Steward's List and may not be removed ~~can not~~ race for seven (7) ~~five~~ (5) days from the date of the race from which they were scratched race. No entries will be accepted on these horses until the seven day period has expired. Entries will be accepted during this five (5) day period for a race to be contested after the fifth day.

Veterinarians may put a horse on the Stewards' List for sickness or lameness for more than five (5) days if necessary. In that instance, the horse may not race until the proscribed number of days has expired. Entries will be accepted during this period for a race to be contested after the proscribed number of days has expired.

17. ~~[AMEND Chapter VII, rule I (F) to now provide as follows:~~

#### ~~F. Preference Dates~~

~~Preference dates shall be given to horses in all overnight events at extended pari-mutuel tracks in accordance with the following:~~

~~1. The date of the horse's last previous start in a purse race during the current year is its preference date with the following exceptions:~~

~~a) The preference date on a horse that has drawn to race and has been scratched is the date of the race from which scratched.~~

~~b) When a horse is racing for the first time after February 1 in the current year ~~ever~~, the date of its the first declaration into a purse race shall be considered its preference date.~~

~~c) Wherever horses have equal preference in a race, the actual preference of said horses in relation to one another shall be determined by lot.]~~

18. ~~[AMEND Chapter VII, rule II B 9 to now provide as follows:~~

#### ~~H. OVERNIGHT EVENTS~~

##### ~~B. Conditions~~

~~9. In overnight events at extended pari-mutuel meetings and Grand Circuit meetings, not more than eight horses shall be allowed to start on a half mile track and not more than ten horses on larger tracks one trailer shall be permitted, regardless of the size of the track except with the approval of the Commission. At least eight feet per horse must be provided the starters in the front tier. Trailers are not permitted where the track has room to score all horses abreast, allowing eight feet per horse.]~~

19. ~~[Amend Chapter IV, rule III M to add a new rule to now provide as follows:~~

#### ~~III. FACILITIES AND EQUIPMENT~~

##### ~~M. Weather Equipment~~

~~1. An association shall place a wind gauge and thermometer in an area outside the paddock to be used to determine an appropriate weather allowance. The Presiding Judge shall consult at least one member of the driver's committee by the third race to determine an allowance. The following guidelines shall be used in making this determination:~~

##### ~~Temperature or Windchill~~

~~32 degrees - 25 degrees(F) = 1 second allowance~~

~~24 degrees - 15 degrees(F) = 2 second allowance~~

~~14 degrees - 0 degrees(F) = 3 second allowance~~

~~Other relevant factors such as precipitation shall also be considered.]~~

## DEPARTMENT OF EDUCATION

Statutory Authority: 14 Delaware Code,  
Section 122(d) (14 Del.C. 122(d))

### REGULATORY IMPLEMENTING ORDER MULTICULTURAL EDUCATION REGULATIONS

#### I. SUMMARY OF THE EVIDENCE AND INFORMATION SUBMITTED

The Secretary seeks the consent of the State Board of Education to amend the regulations Policy for Multicultural Education, L.3.a., b., and c., pages A-35 to A-37 in the Handbook for K-12 Education. The existing regulations focused on the local school district as the entity to assure that Multicultural Education issues were addressed but the amended regulations place the focus on the school building as well as the district. Items 1-6, 10 and 11, remain essentially the same, items 7, 8, 9, 12, and 13 have been removed because the focus is no longer on a separate multicultural program but on an infusion of the diversity issues into the School Improvement Planning Process and the Quality Review Process. The amended regulations also require the identification of disparities and gaps in achievement among different groups of students.

In response to concerns expressed by the State Board of

Education, the regulations have been renamed "Diversity Regulations" and a new definition is included to better reflect the content of the items in the regulations. Other word changes were also made in response to the State Board's concerns.

Notice of the proposed regulation was published in the News Journal and the Delaware State News on November 9, 1998, in the form hereto attached as Exhibit A. The notice invited written comments and none were received from the newspaper advertisements.

## II. FINDINGS OF FACT

The Secretary finds that it is necessary to amend these regulations because the existing regulations need to reflect the requirements of the Consolidated Grant process and the role the process will be playing in the monitoring of continuous improvement and student achievement.

## III. DECISION TO AMEND THE REGULATIONS

For the foregoing reasons, the Secretary concludes that it is necessary to amend the regulations. Therefore, pursuant to 14 Del. C., Sec. 122, the regulations attached hereto as Exhibit B are hereby amended. Pursuant to the provisions of 14 Delaware Code, Section 122(e), the amended regulations hereby shall be in effect for a period of five years from the effective date of this order as set forth in Section V. below.

## IV. TEXT AND CITATION

The text of the regulations amended hereby shall be in the form attached hereto as Exhibit B, and said regulations shall be cited in the document entitled the Regulations of the Department of Education.

## V. EFFECTIVE DATE OF ORDER

The actions hereinabove referred to were taken by the Secretary pursuant to 14 Del. C., Sec. 122, in open session at the said Board's regularly scheduled meeting on December 17, 1998. The effective date of this Order shall be ten (10) days from the date this Order is published in the Delaware Register of Regulations.

**IT IS SO ORDERED** this 17th day of December, 1998.

DEPARTMENT OF EDUCATION  
Dr. Iris T. Metts, Secretary of Education

Approved this 17th day of December, 1998.  
STATE BOARD OF EDUCATION  
Dr. James L. Spartz, President  
Jean W. Allen, Vice President

Nancy A. Doorey  
John W. Jardine, Jr.  
Dr. Joseph A. Pika  
Dennis J. Savage  
Dr. Claibourne D. Smith

AS AMENDED  
EXHIBIT B

## 3. POLICY FOR MULTICULTURAL EDUCATION

### a. Philosophy

~~The State Board of Education is committed to a statewide educational environment that supports educational excellence regardless of race, gender, national origin, handicapping conditions or religion. Equitable academic programs and services which respond to the needs of a diverse student population and which prepare all students for a changing workplace and pluralistic society are essential.~~

### b. Local District Responsibility

~~All districts have an obligation to incorporate, as part of their overall educational program, the following essential elements of a comprehensive, multicultural educational program:~~

~~(1) Multicultural information infused into the K-12 curriculum should equip all students with the knowledge and skills necessary to participate productively in a multiracial/multiethnic society.~~

~~(2) Creation of an atmosphere which recognizes, accepts and promotes cultural, racial and ethnic diversity and respects and values differences as a positive integral resource of a democratic society.~~

~~(3) Student counseling, assessment, discipline and placement that is culturally appropriate.~~

~~(4) The facilitation of the full participation and success of Limited English Proficient Students.~~

~~(5) Employment of a variety of instructional strategies and related techniques appropriate for diverse learners.~~

~~(6) Staff training to address multicultural awareness and related concerns.~~

~~(7) Involvement of administrators, teachers, counselors, parents, business and community members of diverse backgrounds to serve as resources and role models.~~

~~(8) Establishment of a district-wide multicultural education advisory committee to include parents, social workers, teachers, administrators, students, counselors, human relations specialists, community members and agency representatives. This committee should be representative of the diversity within the district and society at large.~~

~~(9) Identification of an individual at the district level and in each building to coordinate the K-12 multicultural education program.~~

(10) Means to attract and retain a diverse faculty, staff and student body in all curricular and co-curricular offerings.

(11) Measures to avoid and address inequitable/prejudicial behaviors among employees and students.

(12) Development of a multicultural education needs assessment and methods to evaluate the effectiveness of the total multicultural education effort.

(13) Local school districts are required to submit the names of the district-wide multicultural education advisory committee members and the names of the district and school level program coordinators, to the Improvement and Assistance Branch of the Department of Public Instruction in the fall of each school year.

e. Department of Public Instruction Responsibility

It is the responsibility of the Department of Public Instruction to provide technical assistance by training staff, assisting districts to incorporate multicultural education elements into their programs and helping districts to assess the impact of the program.

(State Board Approved September 1990)

[Multicultural Education ~~Diversity~~ Regulations

1. Definition:

a. ~~Education that is Multicultural recognizes, accepts, values, affirms and promotes individual diversity in a pluralistic setting. Further, the term "multicultural" embraces and accepts the interdependence of the many cultural groups within our country and the world at large: racial, ethnic, regional, religious, and socio-economic groups, as well as men and women, the young and the old, and persons with disabilities.~~

A school community that values diversity is one which embraces and builds on the strengths of individual and group differences, and by so doing enriches the educational program for all students. A curriculum that is multicultural and inclusive of many racial, ethnic, regional, religious, linguistic, and socio-economic groups, and which gives visibility to both women and men, to people of all ages, and to persons with disabilities, affirms the richness of our pluralistic society. The Secretary of Education and the State Board of Education believe that students achieve their best in classrooms where diversity is commonplace.]

2. Each school district shall:

a. ~~Infuse multicultural information throughout the K-12 curriculum in order to equip students with the knowledge and skills necessary to participate productively in a culturally diverse society.~~

Infuse information on diverse cultural groups throughout the K-12 curriculum in order to equip

students with the knowledge and skills necessary to participate productively in a culturally diverse society].

b. Provide professional development to equip all teachers with various instructional techniques and best practices for infusing multicultural information into the curriculum and effectively meeting the needs of diverse learners.

c. Describe in district and school plans how disparities and gaps in student achievement associated with the student's gender, race, ethnicity, socioeconomic status, limited English proficiency, or disability will be identified and eliminated.

d. Provide student counseling, assessment, discipline and placement that is [culturally appropriate sensitive to the needs of individuals from diverse populations.]

e. Ensure full participation and success of Limited English Proficient Students.

Provide appropriate instruction to limited English proficient students so that they will have success in a mainstream classroom where the medium of instruction is English].

f. ~~Describe a strategy to attract and retain a highly skilled and committed faculty and staff reflective of the diversity in the school community.~~

Describe in the district plan a strategy to attract and retain a highly skilled and committed faculty and staff reflective of the diversity in the school community.]

g. Enact measures to avoid and address inequitable and prejudicial behaviors among employees and students.

h. Describe in the school plans specific ways principals and building staff create an atmosphere which recognizes, accepts and values diversity as a positive, integral resource of a democratic society.

REGULATORY IMPLEMENTING ORDER  
PROHIBITION OF DISCRIMINATION

I. SUMMARY OF THE EVIDENCE AND  
INFORMATION SUBMITTED

The Secretary seeks the consent of the State Board of Education to amend the regulation Prohibition of Discrimination, C.1., Page A-3, in the Handbook for K-12 Education. The regulation remains essentially the same and the amendments are designed simply to update the language.

Notice of the proposed regulation was published in the News Journal and the Delaware State News on November 9, 1998, in the form hereto attached as Exhibit A. The notice invited written comments and none were received from the newspaper advertisements.

II. FINDINGS OF FACT

The Secretary finds that it is necessary to amend this regulation because the language of the regulation needs to be brought up to date.

### III. DECISION TO AMEND THE REGULATION

For the foregoing reasons, the Secretary concludes that it is necessary to amend the regulation. Therefore, pursuant to 14 Del. C., Sec. 122, the regulation attached hereto as Exhibit B is hereby amended. Pursuant to the provisions of 14 Delaware Code, Section 122(e), the regulation hereby amended shall be in effect for a period of five years from the effective date of this order as set forth in Section V. below.

### IV. TEXT AND CITATION

The text of the regulations amended hereby shall be in the form attached hereto as Exhibit B, and said regulation shall be cited in the document entitled the Regulations of the Department of Education.

### V. EFFECTIVE DATE OF ORDER

The actions hereinabove referred to were taken by the Secretary pursuant to 14 Del. C., Sec. 122, in open session at the said Board's regularly scheduled meeting on December 17, 1998. The effective date of this Order shall be ten (10) days from the date this Order is published in the Delaware Register of Regulations.

**IT IS SO ORDERED** this 17th day of December, 1998.

DEPARTMENT OF EDUCATION  
Dr. Iris T. Metts, Secretary of Education

Approved this 17th day of December, 1998.

STATE BOARD OF EDUCATION  
Dr. James L. Spartz, President  
Jean W. Allen, Vice President  
Nancy A. Doorey  
John W. Jardine, Jr.  
Dr. Joseph A. Pika  
Dennis J. Savage  
Dr. Claibourne D. Smith

AS AMENDED

### ~~C. DISCRIMINATION~~

#### ~~[200.6].PROHIBITION OF DISCRIMINATION~~

~~The following assurance of compliance with Title 19 of the Delaware Code and the "Rules and Regulations" of the State Board of Education was approved in October 1972:~~

~~This assurance is applicable to all public education programs.~~

~~[1.0] No person in the State of Delaware, shall, on ground the basis of race, color, creed, national origin, handicapping condition, disability, or sex gender, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving approval and/or financial assistance from or through the Delaware State Board of Education and the Delaware Department of Education.~~

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### REGULATORY IMPLEMENTING ORDER

#### PROMOTION REGULATION

### I. SUMMARY OF THE EVIDENCE AND INFORMATION SUBMITTED

The Secretary seeks the approval of the State Board of Education to amend the regulation, Promotion Policy, J.3., page A-27 in the Handbook for K-12 Education. The present policy requires each local school district to have a policy on promotion for students K-12 based on student achievement. It also permits the local district policy to include but not be limited to factors such as emotional stability or instability, physical health and strength and motivational and social skills. The amended regulation still requires each district to have a promotion policy but omits a reference to the other factors and instructs the districts to include the promotion criteria found in 14 Del. C. The amended regulation also defines English Language Arts as it effects students who have Limited English Proficiency.

Notice of the repeal was published in the News Journal and the Delaware State News on November 17, 1998, in the form hereto attached as Exhibit A. The notice invited written comments and none were received from the newspaper advertisements.

Concerns were expressed by the Colonial School District as to the incongruity between H.B. 470 and the accountability legislation especially at the 3, 5, 8, and 10 grades when the state assessment (DSTP) will define promotion. This will have to be addressed as regulations are developed under the accountability legislation.

The Governors Advisory Council for Exceptional Children recommended adding American Sign Language as an English Language Arts equivalent. The Department feels that ASL is an instructional strategy or method for teaching but it can not be a substitute for an English Language Arts course. They also recommended adding a second change concerning children who have already obtained credit for a course in summer school or advanced placement classes.

This type of situation would be rare in grades 1-8 and if it occurred common sense would dictate that such course work would be acknowledged by the district.

Dennis J. Savage  
Dr. Claibourne D. Smith

AS AMENDED

II. FINDINGS OF FACT

The Secretary finds that it is necessary to amend this regulation because 14 Del. C. has been amended and adds elements that must be part of a local district's promotion policy.

III. DECISION TO AMEND THE REGULATION

For the foregoing reasons, the Secretary concludes that it is necessary to amend this regulation. Therefore, pursuant to 14 Del. C., Sec. 122, the regulation attached hereto as Exhibit B is hereby amended. Pursuant to the provisions of 14 Del. Code, Section 122(e), the amended regulation shall be in effect for a period of five years from the effective date of this order as set forth in Section V. below.

IV. TEXT AND CITATION

The text of the regulations amended hereby shall be in the form attached hereto as Exhibit B, and said regulations shall be cited in the document entitled the Regulations of the Department of Education.

V. EFFECTIVE DATE OF ORDER

The actions hereinabove referred to were taken by the Secretary pursuant to 14 Del. C., Sec. 122, in open session at the said Board's regularly scheduled meeting on December 17, 1998. The effective date of this Order shall be ten (10) days from the date this Order is published in the Delaware Register of Regulations.

**IT IS SO ORDERED** this 17th day of December, 1998.

DEPARTMENT OF EDUCATION  
Dr. Iris T. Metts, Secretary of Education

Approved this 17th day of December, 1998.

STATE BOARD OF EDUCATION  
Dr. James L. Spartz, President  
Jean W. Allen, Vice President  
Nancy A. Doorey  
John W. Jardine, Jr.  
Dr. Joseph A. Pika

3. PROMOTION POLICY

~~Each local school district shall have a promotion policy for kindergarten through grade 12 and such policy must be based on student achievement. The promotion policy may also include other factors to be considered when decisions must be made regarding student promotion. Such factors may include, but not be limited to, emotional stability or instability, physical health and strength variables, motivation and social skills. Promotion policy guidelines should be assessed on a continuing basis and modified as appropriate. (State Board Approved January 1978)~~

[200.7] PROMOTION [REGULATION]

~~[1. Each local school district shall have a promotion policy for kindergarten through grade 12 [that, at a minimum, includes the following:]~~

~~a. Students in grades 1-8 must take classes in the core areas of English Language Arts or its equivalent, mathematics, social studies and science each year as defined in the Delaware Content Standards;~~

~~b. Students in grades 1-8 must pass 50% of the classes they take each year (excluding physical education) to be promoted to the next grade level. One of the classes that must be passed is English Language Arts or its equivalent. English Language Arts or its equivalent includes English as a Second Language (ESL), and bilingual classes that are designed to develop the English language proficiency of students who have been identified as LEP. Classes in core areas include those which employ alternative instructional methodologies designed to meet the needs of LEP students in the content areas;~~

~~c. Requirements for promotion as defined in 14 Del. C., Chapter 1, Section 153, titled Matriculation and Academic Promotion Requirements and the Administrative Manual for Exceptional Children;~~

[200.7] PROMOTION

1.0 Each local school district shall have a promotion policy for kindergarten through grade 12.

1.1 Local school districts must follow the requirements for promotion as defined in 14 Del. C., Chapter 1, Section 153, titled Matriculation and Academic Promotion Requirements and the Administrative Manual for Exceptional Children.

1.2 The promotion policies for grades 1-8 must also,

at a minimum, include the following:

**1.2.1 Students in grades 1-8 must receive instruction in English Language Arts or its equivalent, mathematics, social studies and science each year as defined in the Delaware Content Standards.**

**1.2.2 Students in grades 1-8 must pass 50% of their instructional program each year (excluding physical education) to be promoted to the next grade level. One of the subject areas that must be passed is English Language Arts or its equivalent. English Language Arts or its equivalent includes English as a Second Language (ESL), and bilingual classes that are designed to develop the English language proficiency of students who have been identified as LEP. Classes in English Language Arts, mathematics, science and social studies include those which employ alternative instructional methodologies designed to meet the needs of LEP students in the content areas.]**

It was determined that no written materials or suggestions had been received from any individual or the public.

**FINDINGS OF FACT:**

The Department finds that the proposed changes, as set forth in the attached copy should be made in the best interest of the general public of the State of Delaware.

THEREFORE, IT IS ORDERED that the proposed regulations of the Child Care Manual and the elimination of the First Step Manual are adopted and shall become effective ten days after publication of the final regulation in the Delaware Register.

November 30, 1998  
GREGG C. SYLVESTER, MD  
SECRETARY

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**DEPARTMENT OF HEALTH AND  
SOCIAL SERVICES**

**DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 512 (31 Del.C. 512)

**\* Please note that no changes were made to the regulation as originally proposed and published in the October 1998 issue of the Register at page 466 (2:4 Del. R. 466). Therefore, the final regulation is not being republished. Please refer to the October 1998 issue of the Register or contact the Department of Health & Social Services**

IN THE MATTER OF:

**REVISION OF THE CHILD CARE  
AND THE FIRST STEP REGULATIONS  
NATURE OF THE PROCEEDINGS:**

The Delaware Health and Social Services, Division of Social Services, initiated proceedings to change policy governing the Child Care and First Step programs to the Division of Social Services' Manual Sections 11000 and 12000, pursuant to the Administrative Procedures Act. The policy changes arose from the Personal Responsibility and Work Opportunity Act, the new Child Care and Development Block Grant and *A Better Chance* provisions.

On September 9, 1998, the DHSS published in the Delaware Register of Regulations (pages 466-485) its notice of proposed regulation changes, pursuant to 29 Delaware Code Section 10115. It requested that written materials and suggestions from the public concerning the proposed be delivered by October 31, 1998, at which time the Department would review information, factual evidence and public comment to the said proposed changes to the regulations.

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**DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 505 (31 Del.C. 505)

Medicaid / Medical Assistance Program

IN THE MATTER OF:

**REVISION OF THE REGULATIONS  
OF THE MEDICAID/MEDICAL  
ASSISTANCE PROGRAM**

NATURE OF THE PROCEEDINGS:

The Delaware Department of Health and Social Services ("Department") initiated proceedings to update the Medicaid definition of Medical Necessity. The Department's proceedings to amend its regulations were initiated pursuant to 29 Delaware Code Section 10114 and its authority as prescribed by 31 Delaware Code Section 512.

The Department published its notice of proposed

regulation changes pursuant to 29 Delaware Code Section 10115 in the November 1998 Delaware Register of Regulations, requiring written materials and suggestions from the public concerning the proposed regulations to be produced by December 1, 1998, at which time the Department would receive information, factual evidence and public comment to the said proposed changes to the regulations.

A recent publication of Federally mandated Medicaid policy required that the definition of medical necessity be revised before being made final. Therefore, following is the revised definition as it will appear in Delaware Medicaid policy.

#### FINDINGS OF FACT:

The Department finds that the proposed changes as set forth in the November 1998 Register of Regulations should be adopted as amended.

THEREFORE, IT IS ORDERED, that the proposed regulations of the Medicaid/Medical Assistance Program are adopted and shall be final effective January 10, 1999.

December 9, 1998  
Gregg C. Sylvester, M.D.  
Secretary

#### MEDICAL NECESSITY DEFINITION

MEDICAL NECESSITY is defined as:

the essential need for medical care or services (all covered State Medicaid Plan services, subject to age and eligibility restrictions and/or EPSDT requirements) which, when prescribed by the beneficiary's primary physician care manager and delivered by or through authorized and qualified providers, will:

- be directly related to the diagnosed medical condition or the effects of the condition of the beneficiary (the physical or mental functional deficits that characterize the beneficiary's condition), and be provided to the beneficiary only;
- be appropriate and effective to the comprehensive profile (e.g. needs, aptitudes, abilities, and environment) of the beneficiary and the beneficiary's family;
- be primarily directed to treat the diagnosed medical condition or the effects of the condition of the beneficiary, in all settings for normal activities of daily living, but will not be solely for the convenience of the beneficiary, the beneficiary's family, or the beneficiary's provider. ~~(this means that services which are primarily used for educational, vocational, social, recreational, or other non-medical purposes are not covered under the Medicaid program) **and not include medications, devices, or services that are used primarily to provide lifestyle enhancements.**~~

~~even if conditions are medically based (for example: Viagra, Weight Watchers, etc.)~~

- be timely, considering the nature and current state of the beneficiary's diagnosed condition and its effects, and will be expected to achieve the intended outcomes in a reasonable time;
- be the least costly, appropriate, available health service alternative, and will represent an effective and appropriate use of program funds;
- be the most appropriate care or service that can be safely and effectively provided to the beneficiary, and will not duplicate other services provided to the beneficiary;
- be sufficient in amount, scope and duration to reasonably achieve its purpose;
- be recognized as either the treatment of choice (i.e. prevailing community or statewide standard) or common medical practice by the practitioner's peer group, or the functional equivalent of other care and services that are commonly provided;
- be rendered in response to a life threatening condition or pain, or to treat an injury, illness, or other diagnosed condition, or to treat the effects of a diagnosed condition that has resulted in or could result in a physical or mental limitation, including loss of physical or mental functionality or developmental delay;

and will be reasonably determined to:

- diagnose, cure, correct or ameliorate defects and physical and mental illnesses and diagnosed conditions or the effects of such conditions; or
- prevent the worsening of conditions or effects of conditions that endanger life or cause pain, or result in illness or infirmity, or have caused or threaten to cause a physical or mental dysfunction, impairment, disability, or developmental delay; or
- effectively reduce the level of direct medical supervision required or reduce the level of medical care or services received in an institutional setting or other Medicaid program; or
- restore or improve physical or mental functionality, including developmental functioning, lost or delayed as the result of an illness, injury, or other diagnosed condition or the effects of the illness, injury or condition; or
- provide assistance in gaining access to needed medical, social, educational and other services required to diagnose, treat, or support a diagnosed condition or the effects of the condition,

in order that the beneficiary might attain or retain independence, self-care, dignity, self-determination, personal safety, and integration into all natural family, community, and facility environments and activities.

**DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 512 (31 **Del.C.** 512)

DIVISION OF SOCIAL SERVICES  
TANF PROGRAM

IN THE MATTER OF:

REVISION OF THE REGULATIONS  
OF THE A BETTER CHANCE

NATURE OF THE PROCEEDINGS:

The Delaware Health and Social Services (“Department”) initiated proceedings to update Division of Social Services (DSS) manual with regard to determining good cause for non-cooperation with the Division of Child Support Enforcement (DCSE) in the Temporary Assistance for Needy Families, *A Better Chance* program. The Department’s proceedings to amend its regulations were initiated pursuant to 29 Delaware Code Section 10114 and its authority as prescribed by 31 Delaware Code Section 512.

On October 1, 1998 the DHSS published in the Delaware Register of Regulations (pages 494-495) its notice of proposed regulation changes, pursuant to 29 Delaware Code Section 10115. It requested that written materials and suggestions from the public concerning the proposed regulations be delivered to DHSS by October 30, 1998. At which time the Department would review information, factual evidence and public comment to the said proposed changes to the regulations. It was determined that no written materials or suggestions had been received from any individual or the public.

FINDINGS OF FACT:

The Department finds that the proposed change, as set forth in the attached copy should be made in the best interest of the general public of the State of Delaware.

THEREFORE, IT IS ORDERED, that the proposed regulation of the *A Better Chance* are adopted and shall become effective ten days after publication of the final regulation in the Delaware Register.

November 23, 1998  
GREGG C. SYLVESTER, MD  
SECRETARY

3005.4 Good cause determination

It is the responsibility of the ~~DSS~~ Division of Child Support Enforcement (DCSE) to determine if good cause for refusing to cooperate exists. When good cause is determined

to exist, the applicant may participate in the ABC program and will not be required to cooperate in support collection activities.

3005.5 Enforcement without the caretaker's cooperation

When good cause for non-cooperation exists, ~~DSS~~ DCSE must decide whether or not child support enforcement activities can proceed without risk to the child or caretaker if the enforcement activities do not include cooperation. DSS will ask the applicant if he/she believes that enforcement activities can proceed and ~~may also consult with the DCSE in making the decision~~ will relay that information to DCSE.

If a DCSE's recommendation is ~~made~~ to proceed with enforcement activities, DSS will notify the applicant and give the applicant the opportunity to withdraw the application or close the case before enforcement activities begin.

~~3005.6 Assignment of child support rights and Fair Hearings~~

Applicants and recipients have the right to request a fair hearing if they disagree with any DSS or DCSE decision made in regard to the child support assignment, non-cooperation, or good cause claim issues. DCSE will handle the fair hearing requests on issues of non-cooperation and good cause claim.

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**DIVISION OF SOCIAL SERVICES**

Statutory Authority: 31 Delaware Code,  
Section 512 (31 **Del.C.** 512)

IN THE MATTER OF:

REVISION OF THE REGULATIONS  
OF THE FOOD STAMP PROGRAM

NATURE OF THE PROCEEDINGS:

Delaware Health and Social Services (DHSS) initiated proceedings to amend existing regulations contained in Section 9068 and 9092 of the Division of Social Services Manual (DSSM), pursuant to the Administrative Procedures Act.

On August 1, 1998, the DHSS published in the Delaware Register of Regulations (pages 174-176) its notice of proposed regulation changes, pursuant to 29 Delaware Code Section 10115. It requested that written materials and suggestions from the public concerning the proposed regulations be delivered to DHSS by August 31, 1998, at which time the Department would review information, factual evidence and public comment to the said proposed

changes to the regulations.

It was determined that no written materials or suggestions had been received from any individual or the public.

#### FINDINGS OF FACT:

The Department finds that the proposed changes, as set forth in the attached copy should be made in the best interest of the general public of the State of Delaware.

THEREFORE, IT IS ORDERED that the proposed regulations of the Food Stamp Program are adopted and shall become effective ten days after publication of the final regulation in the Delaware Register.

December 8, 1998  
GREGG C. SYLVESTER, MD  
SECRETARY

**\* Please note that no changes were made to the regulation as originally proposed and published in the August 1998 issue of the Register at page 174 (2:2 Del. R. 174). Therefore, the final regulation is not being republished. Please refer to the October 1998 issue of the Register or contact the Department of Health & Social Services**

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**DEPARTMENT OF NATURAL  
RESOURCES AND  
ENVIRONMENTAL CONTROL**  
Division of Air and Waste Management  
Statutory Authority: 7 Delaware Code,  
Chapter 77 (7 Del.C. 77)

Secretary's Order No. 98-A-0046  
Date of Issuance: November 20, 1998

Re: *Proposal to Adopt Accidental Release  
Prevention Regulations*

Effective Date of Regulatory Amendment: January 11, 1999

#### I. Background

On Thursday, October 29, 1998, at approximately 6:00 p.m. a public hearing was held in the DNREC Auditorium at

89 Kings Highway, Dover, Delaware. The public hearing concerned adoption of a regulation entitled *Accidental Release Prevention Regulations* which was developed by completely re-writing the currently enacted *Regulations Governing the Control of Extremely Hazardous Substances*.

Two public workshops concerning the proposed regulatory change were held. One public workshop was held on August 5, 1998, in Delaware City. The other was held on August 13, 1998, in Georgetown. Public notice of the workshops was provided, and proper notice of the public hearing was provided as required by law. At the public hearing, the Hearing Officer stated that the record of this proceeding would remain open until 4:30 p.m. on Monday, November 2, to allow additional time for submission of written comments. No additional written comments were received during this time period. By memorandum dated November 16, 1998, the Hearing Officer submitted his report and recommendation, which is hereby explicitly incorporated into this Order by reference.

#### II. Findings

1. Proper notice of the public hearing was provided as required by law.
2. An informal public workshop concerning the regulatory proposal was held in New Castle County and another was held in Sussex County prior to the public hearing.
3. No members of the public presented any comments or questions at the public hearing.
4. The Hearing Officer allowed the record to remain open until 4:30 p.m. on November 2, 1998, to allow time for submission of additional written comments; however, no such comments were received.
5. The only written comments concerning the proposal were submitted before the hearing by U.S. EPA Region III (DNREC Exhibit 12) and minor changes were made to the proposal in response to these comments.
6. The minor changes made to the proposal after it was published in the *Register of Regulations* as detailed in DNREC Exhibit No. 13 do not constitute significant changes with respect to republishing this regulatory proposal.
7. The regulatory proposal was adopted through a committee process involving members of DNREC, EPA, industry and the public.
8. The regulatory proposal has federally enforceable sections, which are as stringent as the EPA rule, and a section enforceable only by the state with more stringent requirements.
9. The regulatory proposal is intended to be used as the basis for delegation of the federal 112(r) rule program to the state of Delaware.
10. The record supports promulgation of the amendment to the *Regulations Governing the Control of Air Pollution* and contains no evidence to the contrary.

**III. Order**

In view of the above findings, it is hereby ordered the proposed *Accidental Release Prevention Regulations* be amended in the manner and form provided by law.

**IV. Reasons**

Adoption of the proposed *Accidental Release Prevention Regulation* will further the policies and purposes of 7 Del.C. Chapter 77, in that it will address hazardous air pollutants. This regulatory proposal was not opposed in any way by the public or the regulated community. In addition, this regulatory proposal is intended to be used as the basis for delegation of the federal 112(r) rule program to the state of Delaware.

Mary L. McKenzie, Acting Secretary

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**Regulation History:**

Regulation for the Management of Extremely Hazardous Substances

(EHS Regulation) -- Adopted - September 25, 1989

EHS Regulation -- Revised - December 18, 1995

Accidental Release Prevention Regulation -- Proposed - October 29, 1998

Accidental Release Prevention Regulation

**Section 1. Statement of Authority**

Pursuant to 7 Delaware Code, Chapter 77, the General Assembly of the State of Delaware has directed that regulations be prepared and adopted by the Department of Natural Resources and Environmental Control to require owners or operators of stationary sources having regulated substances to take actions, subject to review by the Department, to control and minimize the chances of sudden, accidental releases and catastrophic releases of such substances. The Department adopted the "Regulation for the Management of Extremely Hazardous Substances" on September 25, 1989 and modified this regulation on December 18, 1995. The "Accidental Release Prevention Regulation" replaces the "Regulation for the Management of Extremely Hazardous Substances" in its entirety.

The General Assembly of the State of Delaware has also directed the Department to seek full delegation from the United States Environmental Protection Agency to administer the sections of 40 Code of Federal Regulations (CFR) Part 68, "Chemical Accident Provisions" **[revised as of July 1, 1997]** which can be delegated to the State.

**Section 2. Purpose**

The purpose of this regulation is to protect lives and the health of citizens of the state living and working in the

vicinity of stationary sources having regulated substances on site. This regulation is concerned with the prevention of sudden releases of regulated substances and the generation of pressure waves and thermal exposure beyond the property boundaries of the stationary source where they occur and the catastrophic health consequences caused by short-term exposures to such accidental releases. This regulation has the goal of prevention of such catastrophic events by requiring owner or operator having regulated substances on-site to take all feasible actions needed to minimize the probability of catastrophic events. It is the intent of this regulation to complement and be enforced in conjunction with other laws.

It is also the secondary purpose of this regulation to adopt the necessary language to allow the Department to seek delegation of the United States Environmental Protection Agency authority for 40 CFR Part 68, "Chemical Accident Provisions" **[revised as of July 1, 1997]** for the administration of the sections of this rule which can be delegated to the State.

This regulation has two parts. The first part (consisting of Section 5) deals with adopting the federal language to allow delegation of the federal program. The second part (consisting of Section 6) uses state authority to extend beyond 40 CFR Part 68 **[revised as of July 1, 1997]** to continue to regulate substances that were previously regulated by the Delaware "Regulation for the Management of Extremely Hazardous Substances", as revised on December 18, 1995. The accidental release prevention activities (the prevention program or the risk management program) are the same for processes subject to either Section 5 or Section 6. Section 6 also contains reporting requirements for a process having regulated substances that are subject to the State criteria but not the federal criteria.

**Section 3. Policy and General Duty.**

It is the obligation of the owner or operator of stationary sources having regulated substances on-site to operate in a manner consistent with this regulation by developing and implementing a risk management program that anticipates and minimizes the chances of catastrophic events. The stationary source risk management program implementation shall be subject to review by the Department. It is the objective of this regulation and the programs established by this regulation to prevent accidental releases and to minimize the consequences of any such release of any substance listed in Section 5.130 or Sections 6.20, 6.30 and 6.40 or any other extremely hazardous substance.

Every person in control of or associated with any such substances (regulated or not regulated) that is produced, handled, or stored has a general duty to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent

releases, and to minimize the consequences of accidental releases which do occur.

#### Section 4. Definitions

*Accidental release* means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

*Actual Distance to Stationary Source Boundary* means the distance from the nearest potential release point capable of generating a sufficient quantity to the nearest public receptor.

*Actual Quantity (AQ)* means the sum of all the physical quantities of a regulated substance listed in either Section 6.20, 6.30 or 6.40 in whatever form at the maximum design capacity of the process considering administrative controls.

*Administrative controls* mean written procedural mechanisms used for hazard control.

*Administrator* means the Administrator of the U.S. Environmental Protection Agency.

*AICHE/CCPS* means the American Institute of Chemical Engineers/Center for Chemical Process Safety.

*API* means the American Petroleum Institute.

*Article* means a manufactured item, as defined under 29 CFR 1910.1200(b) [dated July 1, 1997], that is formed to a specific shape or design during manufacture, that has end use functions dependent in whole or in part upon the shape or design during end use, and that does not release or otherwise result in exposure to a regulated substance under normal conditions of processing and use.

*Artificial Barricade* means an artificial mound or riveted wall of earth of a minimum thickness of three feet (NFPA-495, 1996 Edition, Explanatory Notes for Table 6-4.1 "American Table of Distances").

*ASME* means the American Society of Mechanical Engineers.

*Board* means the Environmental Appeals Board.

*CAS* means the Chemical Abstracts Service.

*Catastrophic Event* means a sudden release of a sufficient quantity of a regulated substance, a pressure wave or a thermal exposure beyond the property boundaries of a stationary source which will cause death or permanent

disability to a person because of a single, short term exposure.

*Catastrophic release* means a major uncontrolled emission, fire, or explosion, involving one or more regulated substances that presents imminent and substantial endangerment to public health and the environment.

*Classified information* means "classified information" as defined in the Classified Information Procedures Act, 18 U.S.C. App. 3, Section 1(a) as "any information or material that has been determined by the United States Government pursuant to an executive order, statute, or regulation, to require protection against unauthorized disclosure for reasons of national security."

*Combustible Liquid* means a liquid having a flash point at or above 100°F and below 140°F.

*Condensate* means hydrocarbon liquid separated from natural gas that condenses due to changes in temperature, pressure, or both, and remains a liquid at standard conditions.

*Consequence Analysis* means a review of the potential effects of regulated substance release on surrounding populations.

*Consequence Assessment* means an evaluation of the results of a release of a regulated substance. A consequence assessment shall consist of:

- An estimate of the PRQ,
- Dispersion analysis (for toxics, flammables, and combustibles) showing downwind effects, and
- Consequence analysis involving potentially exposed population.

*Covered process* means a process that has a regulated substance present in more than a threshold quantity as determined in Section 5.115 or a regulated substance present in more than the sufficient quantity as determined in Sections 6.20, 6.30 or 6.40.

*Critical* means those elements such as equipment, piping, alarms, interlocks, or controls which are essential to preventing the occurrence of a catastrophic event.

*Crude oil* means any naturally occurring, unrefined petroleum liquid.

*Department* means the Department of Natural Resources and Environmental Control (DNREC).

*Dispersion Analysis* means the calculation, by means of a

model of the ambient concentrations of a regulated substance after its release, taking into account, when appropriate, the physical and chemical state and properties of the regulated substance, the release scenario, and the geographical, topographical, geological and meteorological characteristics of the environment which will influence the migration, movement, dilution, or degradation of the regulated substance in the environment.

*DOT* means the United States Department of Transportation.

*Environmental receptor* means natural areas such as national or state parks, forests, or monuments; officially designated wildlife sanctuaries, preserves, refuges, or areas; and Federal wilderness areas, that could be exposed at any time to toxic concentrations, radiant heat, or overpressure greater than or equal to the endpoints provided in Section 5.22(a), as a result of an accidental release and that can be identified on local U. S. Geological Survey maps.

*Field gas* means gas extracted from a production well before the gas enters a natural gas processing plant.

*Flammable Gas* means a gas or vapor which when mixed with air or oxygen in certain concentrations will ignite and burn on contact with a source of ignition. Such gases have lower and upper explosive limits which are usually expressed in terms of percentage by volume of gas or vapor in air.

*Flammable Liquid* means a liquid having a flash point below 100°F.

*Hot work* means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

*Implementing agency* means the Department.

*Injury* means any effect on a human that results either from direct exposure to toxic concentrations, radiant heat, or overpressures from accidental releases or from the direct consequences of a vapor cloud explosion (such as flying glass, debris, and other projectiles) from an accidental release and that requires medical treatment or hospitalization.

*Major change* means introduction of a new process, process equipment, or regulated substance, an alteration of process chemistry that results in any change to safe operating limits, or other alteration that introduces a new hazard.

*Mechanical integrity* means the process of ensuring that process equipment is fabricated from the proper materials of

construction and is properly installed, maintained, and replaced to prevent failures and accidental releases.

*Medical treatment* means treatment, other than first aid, administered by a physician or registered professional personnel under standing orders from a physician.

*Mitigation or mitigation system* means specific activities, technologies, or equipment designed or deployed to capture or control substances upon loss of containment to minimize exposure of the public or the environment. Passive mitigation means equipment, devices, or technologies that function without human, mechanical, or other energy input. Active mitigation means equipment, devices, or technologies that need human, mechanical, or other energy input to function.

*Natural Barricade* means natural features of the ground, such as hills, or standing timber of sufficient density that the surroundings which require protection cannot be seen from the regulated process when the trees are bare of leaves; see the Explanatory Notes for Table 6-4.1 of NFPA 495 "Explosive Materials Code, 1196 Edition".

*NAICS* means the North American Industrial Classification System. (Replaces SIC codes).

*Natural gas processing plant (gas plant)* means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both, classified as North American Industrial Classification System (NAICS) code 211112 (previously Standard Industrial Classification (SIC) code 1321).

*NFPA* means the National Fire Protection Association.

*Offsite* means areas beyond the property boundary of the stationary source, and areas within the property boundary to which the public has routine and unrestricted access during or outside business hours.

*OSHA* means the U.S. Occupational Safety and Health Administration.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises a stationary source.

*Person or persons* means a natural person, partnership, limited partnership, trust, estate, corporation, custodian, association or any other individual entity in its own or any representative capacity.

*Petroleum refining process unit* means a process unit used in

an establishment primarily engaged in petroleum refining as defined in NAICS code 32411 for petroleum refining (formerly SIC code 2911) and used for the following: producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants; separating petroleum; or separating, cracking, reacting, or reforming intermediate petroleum products streams. Examples of such units include, but are not limited to, petroleum-based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units include sulfur plants.

*Population* means the public.

*Produced water* means water extracted from the earth from an oil or natural gas production well, or that is separated from oil or natural gas after extraction.

*Process* means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

*Process Hazard Review* means a systematic identification of the potential sources and conditions that may result in the release of a regulated substance and determination of the effects of the release on the surrounding environment using generally accepted methods of risk assessment.

*Public* means any person except employees or contractors at the stationary source.

*Public receptor* means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release.

*Regulated substance* is any substance listed pursuant to Section 5.130 or Sections 6.20, 6.30, or 6.40.

*Replacement in kind* means a replacement that satisfies the design specifications.

*Risk Management Program* means all the activities intended

to reduce risk of a catastrophic event including, but not limited to, the consideration of technology, personnel and the equipment associated with the covered process.

*Risk Management Plan or RMP* means the risk management plan submission required under subpart G of Section 5. The Delaware RMP is called the Delaware Risk Management Plan.

*RMP Off-site Consequent Analysis Guidance* means guidance document published on May 24, 1996 by the EPA intended to assist sources to conduct worst-case consequence analyses and alternative scenarios involving regulated substances.

*Secretary* means the Secretary of the Department of Natural Resources and Environmental Control.

*Separate Containment Area* means an area which is separated from other areas by 100 meters or which is separated from adjoining areas by 4-hour fire rated walls resistant to blast pressures of 3 psig; in addition, such areas cannot have common piping containing a regulated substance.

*SIC* means Standard Industrial Classification.

*Stationary source* means any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this regulation. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulation under 49 CFR parts 192, 193, or 195, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under 49 U.S.C. Section 60105. A stationary source does not include naturally occurring hydrocarbon reservoirs. Properties shall not be considered contiguous solely because of a railroad or pipeline right-of-way.

*Substance Hazard Index (SHI)* means a calculated number which relates the relative danger of a substance considering toxicity and ability to disperse in the atmosphere.

*Sufficient Quantity (SQ)* means the amount of regulated

substance sufficient to cause a catastrophic event. The sufficient quantity shall be calculated based on commonly recognized atmospheric modeling procedures and mortality/exposure probabilities calculated for an average individual. For flammable and combustible substances, the sufficient quantity is expressed as a release rate. For toxic and explosive substances it is expressed as a distinct quantity.

*Technically qualified individual* means a person or persons (1) who, because of education, training, or experience, or a combination of these factors, is capable of understanding the health and environmental risks associated with the chemical substance which is used under his or her supervision, (2) who is responsible for enforcing appropriate methods of conducting scientific experimentation, analysis, or chemical research to minimize such risks, and (3) who is responsible for the safety assessments and clearances related to the procurement, storage, use, and disposal of the chemical substance as may be appropriate or required within the scope of conducting a research and development activity.

*Threshold quantity* means the quantity specified for regulated substances pursuant to Section 112(r)(5) of the Clean Air Act as amended, listed in Section 5.130 and determined to be present at a stationary source as specified in Section 5.115.

*Typical meteorological conditions* means the temperature, wind speed, cloud cover, and atmospheric stability class, prevailing at the site based on data gathered at or near the site or from a local meteorological station.

*Unit* means the nearest whole number resulting from the division of the actual quantity by the sufficient quantity at 100 meters as set forth in Sections 6.20, 6.30, or 6.40 of this regulation and the nearest whole number resulting from the division of the actual quantity by the threshold quantity as set forth in Section 5.130 of this regulation. For stationary sources reporting propane or ammonium nitrate with a *potential release quantity* equal to or greater than the *sufficient quantity* in their risk management plan, the units will equal one, regardless of the *actual quantity*.

*Vessel* means any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.

*Worst-case release* means the release of the largest quantity of a regulated substance from a vessel or process line failure that results in the greatest distance to an endpoint defined in Section 5.22(a).

Section 5. Accidental Release Prevention Provisions Established to Seek Delegation of 40 CFR Part 68 [Revised as of July 1, 1997]

#### Subpart A--General

##### Section 5.10 Applicability

(a) An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under Section 5.115, shall comply with the requirements of this regulation no later than the latest of the following dates:

(1) June 21, 1999;

(2) Three years after the date on which a regulated substance is first listed by EPA pursuant to 40 CFR 68.130 [dated July 1, 1997]; or

(3) The date on which a regulated substance is first present above a threshold quantity in a process.

(b) Program 1 eligibility requirements. A covered process is eligible for Program 1 requirements as provided in Section 5.12(b) if it meets all of the following requirements:

(1) For the five years prior to the submission of an RMP, the process has not had an accidental release of a regulated substance where exposure to the substance, its reaction products, overpressure generated by an explosion involving the substance, or radiant heat generated by a fire involving the substance led to any of the following off-site:

(i) Death;

(ii) Injury; or

(iii) Response or restoration activities for an exposure of an environmental receptor;

(2) The distance to a toxic or flammable endpoint for a worst-case release assessment conducted under Subpart B and Section 5.25 is less than the distance to any public receptor, as defined in Section 5.30; and

(3) Emergency response procedures have been coordinated between the stationary source and local emergency planning and response organizations.

(c) Program 2 eligibility requirements. A covered process is subject to Program 2 requirements if it does not meet the eligibility requirements of either paragraph (b) or paragraph (d) of this section.

(d) Program 3 eligibility requirements. A covered process is subject to Program 3 if the process does not meet the requirements of paragraph (b) of this section, and if either of the following conditions is met:

(1) The process is in NAICS code 325181, 325211, 325311, 32532, 32411, 32211, 325188, 32511, 325192, 325199; or

(2) The process is subject to the OSHA process safety management standard, 29 CFR 1910.119 [dated July 1, 1997].

(e) If at any time a covered process no longer meets the eligibility criteria of its Program level, the owner or operator shall comply with the requirements of the new Program level that applies to the process and update the RMP as provided in Section 5.190.

## Section 5.12 General Requirements

(a) General requirements. The owner or operator of a stationary source subject to this part shall submit a single RMP, as provided in Sections 5.150 to 5.185. The RMP shall include a registration that reflects all covered processes.

(b) Program 1 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process eligible for Program 1, as provided in Section 5.10(b), shall:

(1) Analyze the worst-case release scenario for the process(es), as provided in Section 5.25; document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint defined in Section 5.22(a); and submit in the RMP the worst-case release scenario as provided in Section 5.165;

(2) Complete the five-year accident history for the process as provided in Section 5.42 of this part and submit it in the RMP as provided in Section 5.168;

(3) Ensure that response actions have been coordinated with local emergency planning and response agencies; and

(4) Certify in the RMP the following: "Based on the criteria in Section 5.10 (40 CFR 68.10 [dated July 1, 1997]), the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor: [list process(es)]. Within the past five years, the process(es) has (have) had no accidental release that caused off-site impacts provided in the risk management program rule (Section 5.10(b)(1)). No additional measures are necessary to prevent off-site impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete. [Signature, title, date signed]."

(c) Program 2 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process subject to Program 2, as provided in Section 5.10(c), shall:

(1) Develop and implement a management system as provided in Section 5.15;

(2) Conduct a hazard assessment as provided in Sections 5.20 through 5.42;

(3) Implement the Program 2 prevention steps provided in Sections 5.48 through 5.60 or implement the Program 3 prevention steps provided in Sections 5.65 through 5.87;

(4) Develop and implement an emergency response program as provided in Sections 5.90 to 5.95; and

(5) Submit as part of the RMP the data on prevention program elements for Program 2 processes as provided in Section 5.170.

(d) Program 3 requirements. In addition to meeting the requirements of paragraph (a) of this section, the owner or operator of a stationary source with a process subject to Program 3, as provided in Section 5.10(d) shall:

(1) Develop and implement a management system as provided in Section 5.15;

(2) Conduct a hazard assessment as provided in Sections 5.20 through 5.42;

(3) Implement the prevention requirements of Sections 5.65 through 5.87;

(4) Develop and implement an emergency response program as provided in Sections 5.90 to 5.95 of this part; and

(5) Submit as part of the RMP the data on prevention program elements for Program 3 processes as provided in Section 5.175.

## Section 5.15 Management

(a) The owner or operator of a stationary source with processes subject to Program 2 or Program 3 shall develop a management system to oversee the implementation of the risk management program elements.

(b) The owner or operator shall assign a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements.

(c) When responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under paragraph (b) of this section, the names or positions of these people shall be documented and the lines of authority defined through an organization chart or similar document.

## Subpart B--Hazard Assessment

## Section 5.20 Applicability

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under Section 5.115, shall prepare a worst-case release scenario analysis as provided in Section 5.25 of this part and complete the five-year accident history as provided in Section 5.42. The owner or operator of a Program 2 and 3 process must comply with all sections in this subpart for these processes.

## Section 5.22 Off-site Consequence Analysis Parameters

(a) Endpoints. For analyses of off-site consequences, the following endpoints shall be used:

(1) Toxics. The toxic endpoints provided in Table

3 of this part.

(2) Flammables. The endpoints for flammables vary according to the scenarios studied:

(i) Explosion. An overpressure of 1 psi.

(ii) Radiant heat/exposure time. A radiant heat of 5 kw/m<sup>2</sup> for 40 seconds.

(iii) Lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources.

(b) Wind speed/atmospheric stability class. For the worst-case release analysis, the owner or operator shall use a wind speed of 1.5 meters per second and atmospheric stability class of F. If the owner or operator can demonstrate that local meteorological data applicable to the stationary source show a higher minimum wind speed or less stable atmosphere at all times during the previous three years, these minimums may be used. For analysis of alternative scenarios, the owner or operator may use the typical meteorological conditions for the stationary source.

(c) Ambient temperature/humidity. For worst-case release analysis of a regulated toxic substance, the owner or operator shall use the highest daily maximum temperature in the previous three years and average humidity for the site, based on temperature/humidity data gathered at the stationary source or at a local meteorological station; an owner or operator using the RMP Off-site Consequence Analysis Guidance may use 25 deg.C and 50 percent humidity as values for these variables. For analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station.

(d) Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release. For an alternative scenario analysis of a regulated toxic substance, release height may be determined by the release scenario.

(e) Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed.

(f) Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density.

(g) Temperature of released substance. For worst case, liquids other than gases liquified by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher. For alternative scenarios, substances may be considered to be released at a process or

ambient temperature that is appropriate for the scenario.

**Section 5.25 Worst-Case Release Scenario Analysis**

(a) The owner or operator shall analyze and report in the RMP:

(1) For Program 1 processes, one worst-case release scenario for each Program 1 process;

(2) For Program 2 and 3 processes:

(i) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint provided in Table 3 of this regulation resulting from an accidental release of regulated toxic substances from covered processes under worst-case conditions defined in Section 5.22;

(ii) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint defined in Section 5.22(a) resulting from an accidental release of regulated flammable substances from covered processes under worst-case conditions defined in Section 5.22; and

(iii) Additional worst-case release scenarios for a hazard class if a worst-case release from another covered process at the stationary source potentially affects public receptors different from those potentially affected by the worst-case release scenario developed under paragraphs (a)(2)(i) or (a)(2)(ii) of this section.

(b) Determination of worst-case release quantity. The worst-case release quantity shall be the greater of the following:

(1) For substances in a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity; or

(2) For substances in pipes, the greatest amount in a pipe, taking into account administrative controls that limit the maximum quantity.

(c) Worst-case release scenario--toxic gases.

(1) For regulated toxic substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is released as a gas over 10 minutes. The release rate shall be assumed to be the total quantity divided by 10 unless passive mitigation systems are in place.

(2) For gases handled as refrigerated liquids at ambient pressure:

(i) If the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 cm or less, the owner or operator shall assume that the substance is released as a gas in 10 minutes;

(ii) If the released substance is contained by passive mitigation systems in a pool with a depth greater than 1 cm, the owner or operator may assume that the quantity in the vessel or pipe, as determined under paragraph

(b) of this section, is spilled instantaneously to form a liquid pool. The volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in paragraph (d) of this section.

(d) Worst-case release scenario--toxic liquids.

(1) For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under paragraph (b) of this section, is spilled instantaneously to form a liquid pool.

(i) The surface area of the pool shall be determined by assuming that the liquid spreads to 1 centimeter deep unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. Where passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate.

(ii) If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics.

(2) The volatilization rate shall account for the highest daily maximum temperature occurring in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution.

(3) The rate of release to air shall be determined from the volatilization rate of the liquid pool. The owner or operator may use the methodology in the RMP Off-site Consequence Analysis Guidance or any other publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the Department access to the model and describes model features and differences from publicly available models to local emergency planners upon request.

(e) Worst-case release scenario--flammables. The owner or operator shall assume that the quantity of the substance, as determined under paragraph (b) of this section, vaporizes resulting in a vapor cloud explosion. A yield factor of 10 percent of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods.

(f) Parameters to be applied. The owner or operator shall use the parameters defined in Section 5.22 to determine distance to the endpoints. The owner or operator may use the methodology provided in the RMP Off-site Consequence Analysis Guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator

allows the Department access to the model and describes model features and differences from publicly available models to local emergency planners upon request.

(g) Consideration of passive mitigation. Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended.

(h) Factors in selecting a worst-case scenario. Notwithstanding the provisions of paragraph (b) of this section, the owner or operator shall select as the worst case for flammable regulated substances or the worst case for regulated toxic substances, a scenario based on the following factors if such a scenario would result in a greater distance to an endpoint defined in Section 5.22(a) beyond the stationary source boundary than the scenario provided under paragraph (b) of this section:

(1) Smaller quantities handled at higher process temperature or pressure; and

(2) Proximity to the boundary of the stationary source.

#### Section 5.28 Alternative Release Scenario Analysis

(a) The number of scenarios. The owner or operator of Program 2 and Program 3 processes shall identify and analyze at least one alternative release scenario for each regulated toxic substance held in a covered process(es) and at least one alternative release scenario to represent all flammable substances held in covered processes.

(b) Scenarios to consider.

(1) For each scenario required under paragraph (a) of this section, the owner or operator shall select a scenario:

(i) That is more likely to occur than the worst-case release scenario under Section 5.25; and

(ii) That will reach an endpoint off-site, unless no such scenario exists.

(2) Release scenarios considered should include, but are not limited to, the following, where applicable:

(i) Transfer hose releases due to splits or sudden hose uncoupling;

(ii) Process piping releases from failures at flanges, joints, welds, valves and valve seals, and drains or bleeds;

(iii) Process vessel or pump releases due to cracks, seal failure, or drain, bleed, or plug failure;

(iv) Vessel overfilling and spill, or overpressurization and venting through relief valves or rupture disks; and

(v) Shipping container mishandling and breakage or puncturing leading to a spill.

(c) Parameters to be applied. The owner or operator shall use the appropriate parameters defined in Section 5.22 to determine distance to the endpoints. The owner or operator may use either the methodology provided in the

RMP Off-site Consequence Analysis Guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the specified modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the Department access to the model and describes model features and differences from publicly available models to local emergency planners upon request.

(d) Consideration of mitigation. Active and passive mitigation systems may be considered provided they are capable of withstanding the event that triggered the release and would still be functional.

(e) Factors in selecting scenarios.

The owner or operator shall consider the following in selecting alternative release scenarios:

(1) The five-year accident history provided in Section 5.42; and

(2) Failure scenarios identified under Section 5.50 or Section 5.67.

#### Section 5.30 Defining Off-site Impacts--Population

(a) The owner or operator shall estimate in the RMP the population within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in Section 5.22(a).

(b) Population to be defined. Population shall include residential population. The presence of institutions (schools, hospitals, prisons), parks and recreational areas, and major commercial, office, and industrial buildings shall be noted in the RMP.

(c) Data sources acceptable. The owner or operator may use the most recent census data, or other updated information, to estimate the population potentially affected.

(d) Level of accuracy. Population shall be estimated to two significant digits.

#### Section 5.33 Defining Off-site Impacts--environment

(a) The owner or operator shall list in the RMP environmental receptors within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in Section 5.22(a) of this part.

(b) Data sources acceptable. The owner or operator may rely on information provided on local U.S. Geological Survey maps or on any data source containing U.S.G.S. data to identify environmental receptors.

#### Section 5.36 Review and Update

(a) The owner or operator shall review and update the off-site consequence analyses at least once every five years.

(b) If changes in processes, quantities stored or handled, or any other aspect of the stationary source might reasonably be expected to increase or decrease the distance

to the endpoint by a factor of two or more, the owner or operator shall complete a revised analysis within six months of the change and submit a revised risk management plan as provided in Section 5.190.

#### Section 5.39 Documentation

The owner or operator shall maintain the following records on the off-site consequence analyses:

(a) For worst-case scenarios, a description of the vessel or pipeline and substance selected as worst case, assumptions and parameters used, and the rationale for selection; assumptions shall include use of any administrative controls and any passive mitigation that were assumed to limit the quantity that could be released. Documentation shall include the anticipated effect of the controls and mitigation on the release quantity and rate.

(b) For alternative release scenarios, a description of the scenarios identified, assumptions and parameters used, and the rationale for the selection of specific scenarios; assumptions shall include use of any administrative controls and any mitigation that were assumed to limit the quantity that could be released. Documentation shall include the effect of the controls and mitigation on the release quantity and rate.

(c) Documentation of estimated quantity released, release rate, and duration of release.

(d) Methodology used to determine distance to endpoints.

(e) Data used to estimate population and environmental receptors potentially affected.

#### Section 5.42 Five-Year Accident History.

(a) The owner or operator shall include in the five-year accident history all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known off-site deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.

(b) Data required. For each accidental release included, the owner or operator shall report the following information:

(1) Date, time, and approximate duration of the release;

(2) Chemical(s) released;

(3) Estimated quantity released in pounds;

(4) The type of release event and its source;

(5) Weather conditions, if known;

(6) On-site impacts;

(7) Known off-site impacts;

(8) Initiating event and contributing factors, if known;

(9) Whether off-site responders were notified, if known; and

(10) Operational or process changes that resulted from investigation of the release.

(c) Level of accuracy. Numerical estimates may be provided to two significant digits.

#### Subpart C--Program 2 Prevention Program

##### Section 5.48 Safety Information

(a) The owner or operator shall compile and maintain the following up-to-date safety information related to the regulated substances, processes, and equipment:

(1) Material Safety Data Sheets that meet the requirements of 29 CFR 1910.1200(g) dated July 1, 1997;

(2) Maximum intended inventory of equipment in which the regulated substances are stored or processed;

(3) Safe upper and lower temperatures, pressures, flows, and compositions;

(4) Equipment specifications; and

(5) Codes and standards used to design, build, and operate the process.

(b) The owner or operator shall ensure that the process is designed in compliance with recognized and generally accepted good engineering practices. Compliance with Federal or state regulations that address industry-specific safe design or with industry-specific design codes and standards may be used to demonstrate compliance with this paragraph.

(c) The owner or operator shall update the safety information if a major change occurs that makes the information inaccurate.

##### Section 5.50 Hazard Review

(a) The owner or operator shall conduct a review of the hazards associated with the regulated substances, process, and procedures. The review shall identify the following:

(1) The hazards associated with the process and regulated substances;

(2) Opportunities for equipment malfunctions or human errors that could cause an accidental release;

(3) The safeguards used or needed to control the hazards or prevent equipment malfunction or human error; and

(4) Any steps used or needed to detect or monitor releases.

(b) The owner or operator may use checklists developed by persons or organizations knowledgeable about the process and equipment as a guide to conducting the review. For processes designed to meet industry standards or Federal or state design rules, the hazard review shall, by inspecting all equipment, determine whether the process is designed, fabricated, and operated in accordance with the applicable standards or rules.

(c) The owner or operator shall document the results of the review and ensure that problems identified are resolved in a timely manner.

(d) The review shall be updated at least once every five

years. The owner or operator shall also conduct reviews whenever a major change in the process occurs; all issues identified in the review shall be resolved before startup of the changed process.

##### Section 5.52 Operating Procedures

(a) The owner or operator shall prepare written operating procedures that provide clear instructions or steps for safely conducting activities associated with each covered process consistent with the safety information for that process. Operating procedures or instructions provided by equipment manufacturers or developed by persons or organizations knowledgeable about the process and equipment may be used as a basis for a stationary source's operating procedures.

(b) The procedures shall address the following:

(1) Initial startup;

(2) Normal operations;

(3) Temporary operations;

(4) Emergency shutdown and operations;

(5) Normal shutdown;

(6) Startup following a normal or emergency shutdown or a major change that requires a hazard review;

(7) Consequences of deviations and steps required to correct or avoid deviations; and

(8) Equipment inspections.

(c) The owner or operator shall ensure that the operating procedures are updated, if necessary, whenever a major change occurs and prior to startup of the changed process.

##### Section 5.54 Training

(a) The owner or operator shall ensure that each employee presently operating a process, and each employee newly assigned to a covered process have been trained or tested competent in the operating procedures provided in Section 5.52 that pertain to their duties. For those employees already operating a process on June 21, 1999, the owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as provided in the operating procedures.

(b) Refresher training. Refresher training shall be provided at least every three years, and more often if necessary, to each employee operating a process to ensure that the employee understands and adheres to the current operating procedures of the process. The owner or operator, in consultation with the employees operating the process, shall determine the appropriate frequency of refresher training.

(c) The owner or operator may use training conducted under Federal or state regulations or under industry-specific standards or codes or training conducted by covered process equipment vendors to demonstrate compliance with this

section to the extent that the training meets the requirements of this section.

(d) The owner or operator shall ensure that operators are trained in any updated or new procedures prior to startup of a process after a major change.

**Section 5.56 Maintenance**

(a) The owner or operator shall prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment. The owner or operator may use procedures or instructions provided by covered process equipment vendors or procedures in Federal or state regulations or industry codes as the basis for stationary source maintenance procedures.

(b) The owner or operator shall train or cause to be trained each employee involved in maintaining the on-going mechanical integrity of the process. To ensure that the employee can perform the job tasks in a safe manner, each such employee shall be trained in the hazards of the process, in how to avoid or correct unsafe conditions, and in the procedures applicable to the employee's job tasks.

(c) Any maintenance contractor shall ensure that each contract maintenance employee is trained to perform the maintenance procedures developed under paragraph (a) of this section.

(d) The owner or operator shall perform or cause to be performed inspections and tests on process equipment. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations, industry standards or codes, good engineering practices, and prior operating experience.

**Section 5.58 Compliance Audits**

(a) The owner or operator shall certify that they have evaluated compliance with the provisions of this subpart at least every three years to verify that the procedures and practices developed under the rule are adequate and are being followed.

(b) The compliance audit shall be conducted by at least one person knowledgeable in the process.

(c) The owner or operator shall develop a report of the audit findings.

(d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit and document that deficiencies have been corrected.

(e) The owner or operator shall retain the two (2) most recent compliance audit reports. This requirement does not apply to any compliance audit report that is more than five years old.

**Section 5.60 Incident Investigation**

(a) The owner or operator shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release.

(b) An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

(c) A summary shall be prepared at the conclusion of the investigation which includes at a minimum:

- (1) Date of incident;
- (2) Date investigation began;
- (3) A description of the incident;
- (4) The factors that contributed to the incident;

and,

(5) Any recommendations resulting from the investigation.

(d) The owner or operator shall promptly address and resolve the investigation findings and recommendations. Resolutions and corrective actions shall be documented.

(e) The findings shall be reviewed with all affected personnel whose job tasks are affected by the findings.

(f) Investigation summaries shall be retained for five years.

**Subpart D--Program 3 Prevention Program**

**Section 5.65 Process Safety Information**

(a) In accordance with the schedule set forth in Section 5.67, the owner or operator shall complete a compilation of written process safety information before conducting any process hazard analysis required by this subpart. The compilation of written process safety information is to enable the owner or operator and the employees involved in operating the process to identify and understand the hazards posed by those processes involving regulated substances. This process safety information shall include information pertaining to the hazards of the regulated substances used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process.

(b) Information pertaining to the hazards of the regulated substances in the process. This information shall consist of at least the following:

- (1) Toxicity information;
- (2) Permissible exposure limits;
- (3) Physical data;
- (4) Reactivity data;
- (5) Corrosion data;
- (6) Thermal and chemical stability data; and
- (7) Hazardous effects of inadvertent mixing of different materials that could foreseeably occur.

*Note to paragraph (b):* Material Safety Data Sheets meeting the requirements of 29 CFR 1910.1200(g) [dated July 1, 1997] may be used to comply with this requirement to the extent they contain the information required by this

subparagraph.

(c) Information pertaining to the technology of the process.

(1) Information concerning the technology of the process shall include at least the following:

(i) A block flow diagram or simplified process flow diagram;

(ii) Process chemistry;

(iii) Maximum intended inventory;

(iv) Safe upper and lower limits for such items as temperatures, pressures, flows or compositions; and

(v) An evaluation of the consequences of deviations.

(2) Where the original technical information no longer exists, such information may be developed in conjunction with the process hazard analysis in sufficient detail to support the analysis.

(d) Information pertaining to the equipment in the process.

(1) Information pertaining to the equipment in the process shall include:

(i) Materials of construction;

(ii) Piping and instrument diagrams (P&ID's);

(iii) Electrical classification;

(iv) Relief system design and design basis;

(v) Ventilation system design;

(vi) Design codes and standards employed;

(vii) Material and energy balances for processes built after June 21, 1999; and

(viii) Safety systems (e.g. interlocks, detection or suppression systems).

(2) The owner or operator shall document that equipment complies with recognized and generally accepted good engineering practices.

(3) For existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the owner or operator shall determine and document that the equipment is designed, maintained, inspected, tested, and operating in a safe manner.

#### Section 5.67 Process Hazard Analysis

(a) The owner or operator shall perform an initial process hazard analysis on processes covered by Program Level 3. The process hazard analysis shall be appropriate to the complexity of the process and shall identify, evaluate, and control the hazards involved in the process. The owner or operator shall determine and document the priority order for conducting process hazard analyses based on a rationale which includes such considerations as extent of the process hazards, number of potentially affected employees, age of the process, and operating history of the process. The process hazard analysis shall be conducted as soon as possible, but not later than June 21, 1999. Process hazards

analyses completed to comply with 29 CFR 1910.119(e) [dated July 1, 1997] are acceptable as initial process hazards analyses. These process hazard analyses shall be updated and revalidated, based on their completion date.

(b) The owner or operator shall use one or more of the following methodologies that are appropriate to determine and evaluate the hazards of the process being analyzed.

(1) What-If;

(2) Checklist;

(3) What-If/Checklist;

(4) Hazard and Operability Study (HAZOP);

(5) Failure Mode and Effects Analysis (FMEA);

(6) Fault Tree Analysis; or

(7) An appropriate equivalent methodology.

(c) The process hazard analysis shall address:

(1) The hazards of the process;

(2) The identification of any previous incident which had a likely potential for catastrophic consequences;

(3) Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.);

(4) Consequences of failure of engineering and administrative controls;

(5) Stationary source siting;

(6) Human factors; and

(7) A qualitative evaluation of a range of the possible safety and health effects of failure of controls.

(d) The process hazard analysis shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.

(e) The owner or operator shall establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance, and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

(f) At least every five (5) years after the completion of the initial process hazard analysis, the process hazard analysis shall be updated and revalidated by a team meeting the requirements in paragraph (d) of this section, to assure that the process hazard analysis is consistent with the current process. Updated and revalidated process hazard analyses

completed to comply with 29 CFR 1910.119(e) [dated July 1, 1997] are acceptable to meet the requirements of this paragraph.

(g) The owner or operator shall retain process hazards analyses and updates or revalidations for each process covered by this section, as well as the documented resolution of recommendations described in paragraph (e) of this section for the life of the process.

**Section 5.69 Operating Procedures**

(a) The owner or operator shall develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements.

- (1) Steps for each operating phase:
    - (i) Initial startup;
    - (ii) Normal operations;
    - (iii) Temporary operations;
    - (iv) Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner;
    - (v) Emergency operations;
    - (vi) Normal shutdown; and,
    - (vii) Startup following a turnaround, or after an emergency shutdown.
  - (2) Operating limits:
    - (i) Consequences of deviation and
    - (ii) Steps required to correct or avoid deviation.
  - (3) Safety and health considerations:
    - (i) Properties of, and hazards presented by, the chemicals used in the process;
    - (ii) Precautions necessary to prevent exposure, including engineering controls, administrative controls, and personal protective equipment;
    - (iii) Control measures to be taken if physical contact or airborne exposure occurs;
    - (iv) Quality control for raw materials and control of hazardous chemical inventory levels and,
    - (v) Any special or unique hazards.
  - (4) Safety systems and their functions.
- (b) Operating procedures shall be readily accessible to employees who work in or maintain a process.
- (c) The operating procedures shall be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.
- (d) The owner or operator shall develop and implement

safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping; and control over entrance into a stationary source by maintenance, contractor, laboratory, or other support personnel. These safe work practices shall apply to employees and contractor employees.

**Section 5.71 Training.**

(a) Initial training.

(1) Each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process, shall be trained in an overview of the process and in the operating procedures as specified in Section 5.69. The training shall include emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks.

(2) In lieu of initial training for those employees already involved in operating a process on June 21, 1999, an owner or operator may certify in writing that the employee has the required knowledge, skills, and abilities to safely carry out the duties and responsibilities as specified in the operating procedures.

(b) Refresher training. Refresher training shall be provided at least every three years, and more often if necessary, to each employee involved in operating a process to assure that the employee understands and adheres to the current operating procedures of the process. The owner or operator, in consultation with the employees involved in operating the process, shall determine the appropriate frequency of refresher training.

(c) Training documentation. The owner or operator shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. The owner or operator shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.

**Section 5.73 Mechanical Integrity**

(a) Application. Paragraphs (b) through (f) of this section apply to the following process equipment:

- (1) Pressure vessels and storage tanks;
- (2) Piping systems (including piping components such as valves);
- (3) Relief and vent systems and devices;
- (4) Emergency shutdown systems;
- (5) Controls (including monitoring devices and sensors, alarms, and interlocks); and
- (6) Pumps.

(b) Written procedures. The owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

(c) Training for process maintenance activities. The owner or operator shall train each employee involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner.

(d) Inspection and testing.

(1) Inspections and tests shall be performed on process equipment.

(2) Inspection and testing procedures shall follow recognized and generally accepted good engineering practices.

(3) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.

(4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

(e) Equipment deficiencies. The owner or operator shall correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in Section 5.65) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

(f) Quality assurance.

(1) In the construction of new plants and equipment, the owner or operator shall assure that equipment as it is fabricated is suitable for the process application for which they will be used.

(2) Appropriate checks and inspections shall be performed to assure that equipment is installed properly and consistent with design specifications and the manufacturer's instructions.

(3) The owner or operator shall assure that maintenance materials, spare parts and equipment are suitable for the process application for which they will be used.

#### Section 5.75 Management of Change

(a) The owner or operator shall establish and implement written procedures to manage changes (except for 'replacements in kind') to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

(b) The procedures shall assure that the following considerations are addressed prior to any change:

(1) The technical basis for the proposed change;

(2) Impact of change on safety and health;

(3) Modifications to operating procedures;

(4) Necessary time period for the change; and,

(5) Authorization requirements for the proposed change.

(c) Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

(d) If a change covered by this paragraph results in a change in the process safety information required by Section 5.65 of this part, such information shall be updated accordingly.

(e) If a change covered by this paragraph results in a change in the operating procedures or practices required by Section 5.69, such procedures or practices shall be updated accordingly.

#### Section 5.77 Pre-startup Review

(a) The owner or operator shall perform a pre-startup safety review for new stationary sources and for modified stationary sources when the modification is significant enough to require a change in the process safety information.

(b) The pre-startup safety review shall confirm that prior to the introduction of regulated substances to a process:

(1) Construction and equipment is in accordance with design specifications;

(2) Safety, operating, maintenance, and emergency procedures are in place and are adequate;

(3) For new stationary sources, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; and modified stationary sources meet the requirements contained in management of change, Section 5.75; and

(4) Training of each employee involved in operating a process has been completed.

#### Section 5.79 Compliance Audits

(a) The owner or operator shall certify that they have evaluated compliance with the provisions of this section at least every three years to verify that the procedures and practices developed under the standard are adequate and are being followed.

(b) The compliance audit shall be conducted by at least one person knowledgeable in the process.

(c) A report of the findings of the audit shall be developed.

(d) The owner or operator shall promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.

(e) The owner or operator shall retain the two (2) most recent compliance audit reports.

**Section 5.81 Incident Investigation**

(a) The owner or operator shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release of a regulated substance.

(b) An incident investigation shall be initiated as promptly as possible, but not later than 48 hours following the incident.

(c) An incident investigation team shall be established and consist of at least one person knowledgeable in the process involved, including a contract employee if the incident involved work of the contractor, and other persons with appropriate knowledge and experience to thoroughly investigate and analyze the incident.

(d) A report shall be prepared at the conclusion of the investigation which includes at a minimum:

- (1) Date of incident;
- (2) Date investigation began;
- (3) A description of the incident;
- (4) The factors that contributed to the incident;

and,

(5) Any recommendations resulting from the investigation.

(e) The owner or operator shall establish a system to promptly address and resolve the incident report findings and recommendations. Resolutions and corrective actions shall be documented.

(f) The report shall be reviewed with all affected personnel whose job tasks are relevant to the incident findings including contract employees where applicable.

(g) Incident investigation reports shall be retained for five years.

**Section 5.83 Employee Participation**

(a) The owner or operator shall develop a written plan of action regarding the implementation of the employee participation required by this section.

(b) The owner or operator shall consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in this regulation.

(c) The owner or operator shall provide to employees and their representatives access to process hazard analyses and to all other information required to be developed under this regulation.

**Section 5.85 Hot Work Permit**

(a) The owner or operator shall issue a hot work permit for hot work operations conducted on or near a covered process.

(b) The permit shall document that the fire prevention and protection requirements in 29 CFR 1910.252(a) [dated **July 1, 1997**] have been implemented prior to beginning the hot work operations; it shall indicate the date(s) authorized

for hot work; and identify the object on which hot work is to be performed. The permit shall be kept on file until completion of the hot work operations.

**Section 5.87 Contractors**

(a) Application. This section applies to contractors performing maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to a covered process. It does not apply to contractors providing incidental services which do not influence process safety, such as janitorial work, food and drink services, laundry, delivery or other supply services.

(b) Owner or operator responsibilities.

(1) The owner or operator, when selecting a contractor, shall obtain and evaluate information regarding the contract owner or operator's safety performance and programs.

(2) The owner or operator shall inform contract owner or operator of the known potential fire, explosion, or toxic release hazards related to the contractor's work and the process.

(3) The owner or operator shall explain to the contract owner or operator the applicable provisions of subpart E of this regulation.

(4) The owner or operator shall develop and implement safe work practices consistent with Section 5.69(d), to control the entrance, presence, and exit of the contract owner or operator and contract employees in covered process areas.

(5) The owner or operator shall periodically evaluate the performance of the contract owner or operator in fulfilling their obligations as specified in paragraph (c) of this section.

(c) Contract owner or operator responsibilities.

(1) The contract owner or operator shall assure that each contract employee is trained in the work practices necessary to safely perform his/her job.

(2) The contract owner or operator shall assure that each contract employee is instructed in the known potential fire, explosion, or toxic release hazards related to his/her job and the process, and the applicable provisions of the emergency action plan.

(3) The contract owner or operator shall document that each contract employee has received and understood the training required by this section. The contract owner or operator shall prepare a record which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.

(4) The contract owner or operator shall assure that each contract employee follows the safety rules of the stationary source including the safe work practices required by Section 5.69(d).

(5) The contract owner or operator shall advise the owner or operator of any unique hazards presented by the

contract owner or operator's work, or of any hazards found by the contract owner or operator's work.

#### Subpart E--Emergency Response

##### Section 5.90 Applicability

(a) Except as provided in paragraph (b) of this section, the owner or operator of a stationary source with Program 2 and Program 3 processes shall comply with the requirements of Section 5.95.

(b) The owner or operator of stationary source whose employees will not respond to accidental releases of regulated substances need not comply with Section 5.95 of this part provided that they meet the following:

(1) For stationary sources with any regulated toxic substance held in a process above the threshold quantity, the stationary source is included in the community emergency response plan developed under 42 U.S.C. 11003;

(2) For stationary sources with only regulated flammable substances held in a process above the threshold quantity, the owner or operator has coordinated response actions with the local fire department; and

(3) Appropriate mechanisms are in place to notify emergency responders when there is a need for a response.

##### Section 5.95 Emergency Response Program

(a) The owner or operator shall develop and implement an emergency response program for the purpose of protecting public health and the environment. Such program shall include the following elements:

(1) An emergency response plan, which shall be maintained at the stationary source and contain at least the following elements:

(i) Procedures for informing the public and local emergency response agencies about accidental releases;

(ii) Documentation of proper first-aid and emergency medical treatment necessary to treat accidental human exposures; and

(iii) Procedures and measures for emergency response after an accidental release of a regulated substance;

(2) Procedures for the use of emergency response equipment and for its inspection, testing, and maintenance;

(3) Training for all employees in relevant procedures; and

(4) Procedures to review and update, as appropriate, the emergency response plan to reflect changes at the stationary source and ensure that employees are informed of changes.

(b) A written plan that complies with other Federal contingency plan regulations or is consistent with the approach in the National Response Team's Integrated Contingency Plan Guidance ("One Plan") and that, among other matters, includes the elements provided in paragraph

(a) of this section, shall satisfy the requirements of this section if the owner or operator also complies with paragraph (c) of this section.

(c) The emergency response plan developed under paragraph (a)(1) of this section shall be coordinated with the community emergency response plan developed under 42 U.S.C. 11003. Upon request of the local emergency planning committee or emergency response officials, the owner or operator shall promptly provide to the local emergency response officials information necessary for developing and implementing the community emergency response plan.

#### Subpart F--Regulated Substances for Accidental Release Prevention

##### Section 5.100 Purpose

This subpart designates substances to be listed under section 112(r)(3), (4), and (5) of the Clean Air Act, as amended and identifies their threshold quantities.

##### Section 5.115 Threshold Determination

(a) A threshold quantity of a regulated substance listed in Section 5.130 is present at a stationary source if the total quantity of the regulated substance contained in a process exceeds the threshold.

(b) For the purposes of determining whether more than a threshold quantity of a regulated substance is present at the stationary source, the following exemptions apply:

(1) *Concentrations of a regulated toxic substance in a mixture.* If a regulated substance is present in a mixture and the concentration of the substance is below one percent by weight of the mixture, the amount of the substance in the mixture need not be considered when determining whether more than a threshold quantity is present at the stationary source. Except for oleum, toluene 2,4-diisocyanate, toluene 2,6-diisocyanate, and toluene diisocyanate (unspecified isomer), if the concentration of the regulated substance in the mixture is one percent or greater by weight, but the owner or operator can demonstrate that the partial pressure of the regulated substance in the mixture (solution) under handling or storage conditions in any portion of the process is less than 10 millimeters of mercury (mm Hg), the amount of the substance in the mixture in that portion of the process need not be considered when determining whether more than a threshold quantity is present at the stationary source. The owner or operator shall document this partial pressure measurement or estimate.

(2) *Concentrations of a regulated flammable substance in a mixture.*

(i) *General provision.* If a regulated substance is present in a mixture and the concentration of the substance is below one percent by weight of the mixture, the mixture need not be considered when determining whether more than a threshold quantity of the regulated substance is

present at the stationary source. Except as provided in paragraph (b)(2) (ii) and (iii) of this section, if the concentration of the substance is one percent or greater by weight of the mixture, then, for purposes of determining whether a threshold quantity is present at the stationary source, the entire weight of the mixture shall be treated as the regulated substance unless the owner or operator can demonstrate that the mixture itself does not have a National Fire Protection Association flammability hazard rating of 4. The demonstration shall be in accordance with the definition of flammability hazard rating 4 in the NFPA 704, Standard System for the Identification of the Hazards of Materials for Emergency Response, National Fire Protection Association, Quincy, MA, 1996. Available from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Environmental Protection Agency Air Docket (6102), Attn: Docket No. A-96-O8, Waterside Mall, 401 M. St. SW., Washington D.C.; or at the Office of Federal Register at 800 North Capitol St., NW, Suite 700, Washington, D.C. Boiling point and flash point shall be defined and determined in accordance with NFPA 30, Flammable and Combustible Liquids Code, National Fire Protection Association, Quincy, MA, 1996. Available from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Environmental Protection Agency Air Docket (6102), Attn: Docket No. A-96-O8, Waterside Mall, 401 M. St. SW., Washington D.C.; or at the Office of Federal Register at 800 North Capitol St., NW, Suite 700, Washington, D.C. The owner or operator shall document the National Fire Protection Association flammability hazard rating.

(ii) *Gasoline.* Regulated substances in gasoline, when in distribution or related storage for use as fuel for internal combustion engines, need not be considered when determining whether more than a threshold quantity is present at a stationary source.

(iii) *Naturally occurring hydrocarbon mixtures.* Prior to entry into a natural gas processing plant or a petroleum refining process unit, regulated substances in naturally occurring hydrocarbon mixtures need not be considered when determining whether more than a threshold quantity is present at a stationary source. Naturally occurring hydrocarbon mixtures include any combination of the following: condensate, crude oil, field gas, and produced water, each as defined in Section 5.3 of this part.

(3) *Articles.* Regulated substances contained in articles need not be considered when determining whether more than a threshold quantity is present at the stationary source.

(4) *Uses.* Regulated substances, when in use for the following purposes, need not be included in determining whether more than a threshold quantity is present at the stationary source:

(i) Use as a structural component of the stationary source;

(ii) Use of products for routine janitorial maintenance;

(iii) Use by employees of foods, drugs, cosmetics, or other personal items containing the regulated substance; and

(iv) Use of regulated substances present in process water or non-contact cooling water as drawn from the environment or municipal sources, or use of regulated substances present in air used either as compressed air or as part of combustion.

(5) *Activities in laboratories.* If a regulated substance is manufactured, processed, or used in a laboratory at a stationary source under the supervision of a technically qualified individual, the quantity of the substance need not be considered in determining whether a threshold quantity is present. This exemption does not apply to:

(i) Specialty chemical production;

(ii) Manufacture, processing, or use of substances in pilot plant scale operations; and

(iii) Activities conducted outside the laboratory.

#### Section 5.125 Exemptions.

*Agricultural nutrients.* Ammonia used as an agricultural nutrient, when held by farmers, is exempt from all provisions of this regulation.

#### Section 5.130 List of Substances.

(a) Regulated toxic and flammable substances under Section 112(r) of the Clean Air Act are the substances listed in Tables 1 and 2, Threshold quantities for listed toxic and flammable substances are specified in the tables.

(b) The basis for placing toxic and flammable substances on the list of regulated substances are explained in the notes to the list.

Table 1: List of Regulated Toxic Substances and Threshold Quantities for Accidental Release Prevention

Chemical Name	CAS #	Threshold Quantity (lbs)	Basis for Listing
Acrolein [2-Propenal]	107-02-8	5,000	b
Acrylonitrile [2-Propenenitrile]	107-13-1	20,000	b
Acrylyl chloride [2-Propenoyl chloride]	814-68-6	5,000	b
Allyl alcohol [2-Propen-1-ol]	107-18-61	15,000	b
Allylamine [2-Propen-1-amine]	107-11-9	10,000	b
Ammonia (anhydrous)	7664-41-7	10,000	a, b
Ammonia (conc 20% or greater)	7664-41-7	20,000	a, b
Arsenous trichloride	7784-34-1	15,000	b
Arsine	7784-42-1	1,000	b
Boron trichloride [Borane, trichloro-]	10294-34-5	5,000	b
Boron trifluoride [Borane, trifluoro-]	7637-07-2	5,000	b
Boron trifluoride with methyl ether (1:1) [Boron, trifluoro[oxy-bis[methane]]-, T-4-	353-42-4	15,000	b
Bromine	7726-95-6	10,000	a, b
Carbon Disulfide	75-15-0	20,000	b
Chlorine	7782-50-5	2,500	a, b
Chlorine Dioxide [Chlorine oxide (ClO <sub>2</sub> )]	10049-04-4	1,000	c
Chloroform [Methane, trichloro-]	67-66-3	20,000	b
Chloromethyl ether [Methane, oxybis[chloro]]	542-88-1	1,000	b
Chloromethyl methyl ether [Methane, chloromethoxy-]	107-30-2	5,000	b
Crotonaldehyde [2-Butenal]	4170-30-3	20,000	b
Croutonaldehyde, (E)-[2-Butenal, (E)-]	123-73-9	20,000	b
Cyanogen chloride	506-77-4	10,000	c
Cyclohexylamine [Cyclohexanamine]	108-91-8	15,000	b
Diborane	19287-45-7	2,500	b
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	5,000	b
1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	57-14-7	15,000	b
Epichlorohydrin [Oxirane, (chloromethyl)-]	106-89-8	20,000	b
Ethylenediamine [1,2-Ethanediamine]	107-15-3	20,000	b
Ethyleneimine [Aziridine]	151-56-4	10,000	b
Ethylene Oxide [Oxirane]	75-21-8	10,000	a, b
Fluorine	7782-41-4	1,000	b
Formaldehyde (solution)	50-00-0	15,000	b
Furan	110-00-9	5,000	b
Hydrazine	302-01-2	15,000	b
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000	d
Hydrocyanic acid	74-90-8	2,500	a, b
Hydrogen chloride (anhydrous) [Hydrochloric acid]	7647-01-0	5,000	a
Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	7664-39-3	1,000	a, b
Hydrogen selenide	7783-07-5	500	b
Hydrogen sulfide	7783-06-4	10,000	a, b
Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> , (TB-5-11)-]	13463-40-6	2,500	b
Isobutyronitrile [Propanenitrile, 2-methyl-]	78-82-0	20,000	b
Isopropyl chloroformate [Carbonochloridic acid, methylester]	108-23-6	15,000	b
Methacrylonitrile [2-Propenenitrile, 2-methyl-]	126-98-7	10,000	b
Methyl chloride [Methane, chloro-]	74-87-3	10,000	a
Methyl chloroformate [Carbonochloridic acid, methylester]	79-22-1	5,000	b
Methyl hydrazine [Hydrazine, methyl-]	60-34-4	15,000	b
Methyl isocyanate [Methane, isocyanato-]	624-83-9	10,000	a, b
Methyl mercaptan [Methanethiol]	74-93-1	10,000	b
Methyl thiocyanate [Thiocyanic acid, methyl ester]	556-64-9	20,000	b
Methyltrichlorosilane [Silane, trichloromethyl-]	75-79-6	5,000	b
Nickel carbonyl	13463-39-3	1,000	b

Nitric acid (conc 80% or greater)	7697-37-2	15,000	b
Nitric oxide [Nitrogen oxide (NO)]	10102-43-9	10,000	b
Oleum (Fuming sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide]	8014-95-7	10,000	e
Peracetic acid [Ethaneperoxoic acid]	79-21-0	10,000	b
Perchloromethylmercaptan [methanesulphenyl chloride, trichloro-]	594-42-3	10,000	b
Phosgene [Carbonic dichloride]	75-44-5	500	a, b
Phosphine	7803-51-2	5,000	b
Phosphorus oxychloride [Phosphoyl chloride]	10025-87-3	5,000	b
Phosphorus trichloride [Phosphorous trichloride]	7719-12-2	15,000	b
Piperdine	110-89-4	15,000	b
Propionitrile [Propanenitrile]	107-12-0	10,000	b
Propyl chlorofromate [Cabonochloridic acid, propylester]	109-61-5	15,000	b
Propyleneimne [Aziridine, 2-methyl-]	75-55-8	10,000	b
Propylene oxide [Oxirane, methyl-]	75-56-9	10,000	b
Sulfur Dioxide (anhydrous)	7446-09-5	5,000	a, b
Sulfur tetrafluoride [Sulfur fluoride (SF <sub>4</sub> ), (T-4)-]	7783-60-0	2,500	b
Sulfur trioxide	7446-11-9	10,000	a, b
Tetramethyllead [Plumbane, tetramethyl-]	75-74-1	10,000	b
Tetranitromethane [Methane, tetranitro-]	509-14-8	10,000	b
Titanium tetrachloride [Titanium chloride (TiCl <sub>4</sub> ), (T-4)]	7550-45-0	2,500	b
Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-] <sup>1</sup>	584-84-9	10,000	a
Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-] <sup>1</sup>	91-08-7	10,000	a
Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-] <sup>1</sup>	26471-62-5	10,000	a
Trimethylchlorosilane [Silane, chlorotrimethyl-]	75-77-4	10,000	b
Vinyl acetate monomer [Acetic acid ethenyl ester]	108-05-4	15,000	b

<sup>1</sup> The mixture exemption in Sec. 5.115(b)(1) does not apply to the substance.

Note: Basis for Listing:

a Mandated for listing by EPA by Congress in Section 112(r) of the 1990 Clean Air Act.

b Listed on the 40 CFR Part 302 EHS list [dated July 1, 1997] and has a vapor pressure of 10 mmHg or greater.

c Toxic gas.

d Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents.

e Toxicity of sulfur trioxide and sulfuric acid, potential to release sulfur trioxide, and history of accidents.

Table 2: List of Regulated Flammable Substances and Threshold Quantities for Accidental Release Prevention

Chemical Name	CAS #	Threshold Quantity (lbs)	Basis for Listing
Acetaldehyde	75-07-0	10,000	g
Acetylene [Ethyne]	74-86-2	10,000	f
Bromotrifluoroethylene [Ethene, bromotribluoro-]	598-73-2	10,000	f
1,3-Butadiene	106-99-0	10,000	f
Butane	106-97-8	10,000	f
1-Butene	106-98-9	10,000	f
2-Butene	107-01-7	10,000	f
Butene	25167-67-3	10,000	f
2-Butene-cis	590-18-1	10,000	f
2-Butene-trans [2-Butene, (E)]	624-64-6	10,000	f
Carbon oxysulfide [Carbon oxide sulfide (COS)]	463-58-1	10,000	f
Chlorine monoxide [Chlorine oxide]	7791-21-1	10,000	f
2-Chloropropylene [1-Propene, 2-chloro-]	557-98-2	10,000	g
1-Chloropropylene [1-Propene, 1-chloro-]	590-21-6	10,000	g
Cyanogen [Ethanedinitrile]	460-19-5	10,000	f
Cyclopropane	75-19-4	10,000	f
Dichlorosilane [Silane, dichloro-]	4109-96-0	10,000	f
Difluoroethane [Ethane, 1,1-difluoro-]	75-37-6	10,000	f
Dimethylamine [Methanamine, N-methyl-]	124-40-3	10,000	f

2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1	10,000	f
Ethane	74-84-0	10,000	f
Ethyl acetylene [1-Butyne]	107-00-6	10,000	f
Ethylamine [Ethanamine]	75-04-7	10,000	f
Ethyl chloride [Ethane, chloro-]	75-00-3	10,000	f
Ethylene [Ethene]	74-85-1	10,000	f
Ethyl ether [Ethane, 1,1oxybis-]	60-29-7	10,000	g
Ethyl mercaptan [Ethanethiol]	75-08-1	10,000	g
Ethyl nitrite [Nitrous acid, ethyl ester]	109-95-5	10,000	f
Hydrogen	1333-74-0	10,000	f
Isobutane [Propane, 2-methyl]	75-28-5	10,000	f
Isopentane [Butane, 2-methyl]	78-78-4	10,000	g
Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5	10,000	g
Isopropylamine [2-Propanamine]	75-31-0	10,000	g
Isopropyl chloride [Propane, 2-chloro-]	75-29-6	10,000	g
Methane	74-82-8	10,000	f
Methylamine [Methanamine]	74-89-5	10,000	f
3-Methyl-1-butene	563-45-1	10,000	f
2-Methyl-1-butene	563-46-2	10,000	g
Methyl ether [Methane, oxybis-]	115-10-6	10,000	f
Methyl formate [Formic acid, methyl ester]	107-31-3	10,000	g
2 Methylpropene [1-Propene, 2-methyl-]	115-11-7	10,000	f
1,3-Pentadinene	504-60-9	10,000	f
Pentane	109-66-0	10,000	g
1-Pentene	109-67-1	10,000	g
2-Pentene, (E)-	646-04-8	10,000	g
2-Pentene, (Z)-	627-20-3	10,000	g
Propadiene [1,2-Propadiene]	463-49-0	10,000	f
Propane	74-98-6	10,000	f
Propylene [1-Propene]	115-07-1	10,000	f
Propyne [1-Propyne]	74-99-7	10,000	f
Silane	7803-62-5	10,000	f
Tetrafluoroethylene [Ethene, tetrafluoro-]	116-14-3	10,000	f
Tetramethylsilane [Silane, tetramethyl-]	75-76-3	10,000	g
Trichlorosilane [Silane, trichloro-]	10025-78-2	10,000	g
Trifluorochloroethylene [Ethene, chlorotrifluoro-]	79-38-9	10,000	f
Trimethylamine [Methylamine, N,N-dimethyl-]	75-50-3	10,000	f
Vinyl acetylene [1-Buten-3-yne]	689-97-4	10,000	f
Vinyl chloride [Ethene, chloro-]	75-01-4	10,000	a, f
Vinyl ethyl ether [Ethene, ethoxy-]	109-92-2	10,000	g
Vinyl fluoride [Ethene, fluoro-]	75-02-5	10,000	f
Vinylidene chloride [Ethene, 1,1-dichloro-]	75-35-4	10,000	g
Vinylidene fluoride [Ethene, 1,1-difluoro-]	75-38-7	10,000	f
Vinyl methyl ether [Ethene, methoxy-]	107-25-5	10,000	f

Note: Basis for Listing:

a Mandated for listing by EPA by Congress in Section 112(r) of the 1990 Clean Air Act.

f Flammable gas.

g Volatile flammable liquid.

Table 3: List of Toxic Endpoints

CAS No.	Chemical Name	Toxic Endpoint (mg/L)
107-02-8	Acrolein [2-Propenal]	0.0011
107-13-1	Acrylonitrile [2-Propenenitrile]	0.076
814-68-6	Acrylyl chloride [2-Propenoyl chloride]	0.00090
107-18-6	Allyl alcohol [2-Propen-1-ol]	0.036
107-11-9	Allylamine [2-Propen-1-amine]	0.0032

7664-41-7	Ammonia (anhydrous)	0.14
7664-41-7	Ammonia (conc 20% or greater)	0.14
7784-34-1	Arsenous trichloride	0.010
7784-42-1	Arsine	0.0019
10294-34-5	Boron trichloride [Borane, trichloro-]	0.010
7637-07-2	Boron trifluoride [Borane, trifluoro-]	0.028
353-42-4	Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro[oxybis[methane]-], T-4	0.023
7726-95-6	Bromine	0.0065
75-15-0	Carbon disulfide	0.16
7782-50-5	Chlorine	0.0087
10049-04-4	Chlorine dioxide [Chlorine oxide (ClO2)]	0.0028
67-66-3	Chloroform [Methane, trichloro-]	0.49
542-88-1	Chloromethyl ether [Methane, oxybis[chloro-]	0.00025
107-30-2	Chloromethyl methyl ether [Methane, chloromethoxy-]	0.0018
4170-30-3	Crotonaldehyde [2-Butenal]	0.029
123-73-9	Crotonaldehyde, (E)-, [2-Butenal, (E)-]	0.029
506-77-4	Cyanogen chloride	0.030
108-91-8	Cyclohexylamine [Cyclohexanamine]	0.16

19287-45-7	Diborane	0.0011
75-78-5	Dimethyldichlorosilane [Silane, dichlorodimethyl-]	0.026
57-14-7	1,1-Dimethylhydrazine [Hydrazine, 1,1-dimethyl-]	0.012
106-89-8	Epichlorohydrin [Oxirane, (chloromethyl)-]	0.076
107-15-3	Ethylenediamine [1,2-Ethanediamine]	0.49
151-56-4	Ethyleneimine [Aziridine]	0.018
75-21-8	Ethylene oxide [Oxirane]	0.090
7782-41-4	Fluorine	0.0039
50-00-0	Formaldehyde (solution)	0.012
110-00-9	Furan	0.0012
302-01-2	Hydrazine	0.011
7647-01-0	Hydrochloric acid (conc <del>30%</del> 37% or greater)	0.030
74-90-8	Hydrocyanic acid	0.011
7647-01-0	Hydrogen chloride (anhydrous) [Hydrochloric acid]	0.030
7664-39-3	Hydrogen fluoride/Hydrofluoric acid (conc 50% or greater) [Hydrofluoric acid]	0.016
7783-07-5	Hydrogen selenide	0.00066
7783-06-4	Hydrogen sulfide	0.042
13463-40-6	Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) <sub>5</sub> , (TB-5-11)-]	0.00044
78-82-0	Isobutyronitrile [Propanenitrile, 2-methyl-]	0.14
108-23-6	Isopropyl chloroformate [Carbonochloride acid, 1-methylethyl ester]	0.10
126-98-7	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	0.0027
74-87-3	Methyl chloride [Methane, chloro-]	0.82
79-22-1	Methyl chloroformate [Carbonochloridic acid, methyl ester]	0.0019
60-34-4	Methyl hydrazine [Hydrazine, methyl-]	0.0094
624-83-9	Methyl isocyanate [Methane, isocyanato-]	0.0012
74-93-1	Methyl mercaptan [Methanethiol]	0.049
556-64-9	Methyl thiocyanate [Thiocyanic acid, methyl ester]	0.085
75-79-6	Methyltrichlorosilane [Silane, trichloromethyl-]	0.018
13463-39-3	Nickel carbonyl	0.00067
7697-37-2	Nitric acid (conc 80% or greater)	0.026
10102-43-9	Nitric oxide [Nitrogen oxide (NO)]	0.031
8014-95-7	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide]	0.010
79-21-0	Peracetic acid [Ethaneperoxoic acid]	0.0045
594-42-3	Perchloromethylmercaptan [Methanesulfonyl chloride, trichloro-]	0.0076
75-44-5	Phosgene [Carbonic dichloride]	0.00081
7803-51-2	Phosphine	0.0035
10025-87-3	Phosphorus oxychloride [Phosphoryl chloride]	0.0030
7719-12-2	Phosphorus trichloride [Phosphorous trichloride]	0.028
110-89-4	Piperidine	0.022
107-12-0	Propionitrile [Propanenitrile]	0.0037
109-61-5	Propyl chloroformate [Carbonochloridic acid, propylester]	0.010
75-55-8	Propyleneimine [Aziridine, 2-methyl-]	0.12
75-56-9	Propylene oxide [Oxirane, methyl-]	0.59
7446-09-5	Sulfur dioxide (anhydrous)	0.0078
7783-60-0	Sulfur tetrafluoride [Sulfur fluoride (SF <sub>4</sub> ), (T-4)-]	0.0092
7446-11-9	Sulfur trioxide	0.010
75-74-1	Tetramethyllead [Plumbane, tetramethyl-]	0.0040
509-14-8	Tetranitromethane [Methane, tetranitro-]	0.0040
7750-45-0	Titanium tetrachloride [Titanium chloride (TiCl <sub>4</sub> ), (T-4)-]	0.020
584-84-9	Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-]	0.0070
91-08-7	Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-]	0.0070
26471-62-5	Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-]	0.0070
75-77-4	Trimethylchlorosilane [Silane, chlorotrimethyl-]	0.050
108-05-4	Vinyl acetate monomer [Acetic acid ethenyl ester]	0.26

## Subpart G--Risk Management Plan

**Section 5.150 Submission Note:** The data elements of the Plan are required to be submitted to the EPA. The data elements of the plan are based upon 40 CFR 68.150 through 68.190 [dated July 1, 1997] reprinted here under Sections 5.150 through 5.190. It is the responsibility of the owner or operator to meet the existing EPA risk management plan data submittal requirements at the time of submission.

- (a) The owner or operator shall submit a single RMP

that includes the information required by Sections 5.155 through 5.185 for all covered processes. The RMP shall be submitted in a method and format to a central point as specified by EPA prior to June 21, 1999.

(b) The owner or operator shall submit the first RMP no later than the latest of the following dates:

- (1) June 21, 1999;

(2) Three years after the date on which a regulated substance is first listed by EPA pursuant to 5.130; or

(3) The date on which a regulated substance is first present above a threshold quantity in a process.

(c) Subsequent submissions of RMPs shall be in accordance with 5.190.

(d) Notwithstanding the provisions of 5.155 to 5.190, the RMP shall exclude classified information. Subject to appropriate procedures to protect such information from public disclosure, classified data or information excluded from the RMP may be made available in a classified annex to the RMP for review by Federal and state representatives who have received the appropriate security clearances.

## Section 5.155 Executive Summary

The owner or operator shall provide in the RMP an executive summary that includes a brief description of the following elements:

(a) The accidental release prevention and emergency response policies at the stationary source;

(b) The stationary source and regulated substances handled;

(c) The worst-case release scenario(s) and the alternative release scenario(s), including administrative controls and mitigation measures to limit the distances for each reported scenario;

(d) The general accidental release prevention program and chemical-specific prevention steps;

(e) The five-year accident history;

(f) The emergency response program; and

(g) Planned changes to improve safety.

## Section 5.160 Registration

(a) The owner or operator shall complete a single registration form and include it in the RMP. The form shall cover all regulated substances handled in covered processes.

(b) The registration shall include the following data:

(1) Stationary source name, street, city, county, state, zip code, latitude, and longitude;

(2) The stationary source Dun and Bradstreet number;

(3) Name and Dun and Bradstreet number of the corporate parent company;

(4) The name, telephone number, and mailing address of the owner or operator;

(5) The name and title of the person or position with overall responsibility for RMP elements and

implementation;

(6) The name, title, telephone number, and 24-hour telephone number of the emergency contact;

(7) For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the NAICS code, and the Program level of the process;

(8) The stationary source EPA identifier;

(9) The number of full-time employees at the stationary source;

(10) Whether the stationary source is subject to 29 CFR 1910.119 [dated July 1, 1997];

(11) Whether the stationary source is subject to 40 CFR part 355 [dated July 1, 1997];

(12) Whether the stationary source has a CAA Title V operating permit; and

(13) The date of the last safety inspection of the stationary source by a Federal, state, or local government agency and the identity of the inspecting entity.

#### Section 5.165 Off-site Consequence Analysis

(a) The owner or operator shall submit in the RMP information:

(1) One worst-case release scenario for each Program 1 process; and

(2) For Program 2 and 3 processes, one worst-case release scenario to represent all regulated toxic substances held above the threshold quantity and one worst-case release scenario to represent all regulated flammable substances held above the threshold quantity. If additional worst-case scenarios for toxics or flammables are required by Section 5.25(a)(2)(iii), the owner or operator shall submit the same information on the additional scenario(s). The owner or operator of Program 2 and 3 processes shall also submit information on one alternative release scenario for each regulated toxic substance held above the threshold quantity and one alternative release scenario to represent all regulated flammable substances held above the threshold quantity.

(b) The owner or operator shall submit the following data:

(1) Chemical name;

(2) Physical state (toxics only);

(3) Basis of results (give model name if used);

(4) Scenario (explosion, fire, toxic gas release, or liquid spill and vaporization);

(5) Quantity released in pounds;

(6) Release rate;

(7) Release duration;

(8) Wind speed and atmospheric stability class (toxics only);

(9) Topography (toxics only);

(10) Distance to endpoint;

(11) Public and environmental receptors within the distance;

(12) Passive mitigation considered; and

(13) Active mitigation considered (alternative releases only);

#### Section 5.168 Five-year Accident History

The owner or operator shall submit in the RMP the information provided in Section 5.42(b) on each accident covered by Section 5.42(a).

#### Section 5.170 Prevention Program/Program 2

(a) For each Program 2 process, the owner or operator shall provide in the RMP the information indicated in paragraphs (b) through (k) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(b) The NAICS code for the process.

(c) The name(s) of the chemical(s) covered.

(d) The date of the most recent review or revision of the safety information and a list of Federal or state regulations or industry-specific design codes and standards used to demonstrate compliance with the safety information requirement.

(e) The date of completion of the most recent hazard review or update.

(1) The expected date of completion of any changes resulting from the hazard review;

(2) Major hazards identified;

(3) Process controls in use;

(4) Mitigation systems in use;

(5) Monitoring and detection systems in use; and

(6) Changes since the last hazard review.

(f) The date of the most recent review or revision of operating procedures.

(g) The date of the most recent review or revision of training programs;

(1) The type of training provided--classroom, classroom plus on the job, on the job; and

(2) The type of competency testing used.

(h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.

(i) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit.

(j) The date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation.

(k) The date of the most recent change that triggered a review or revision of safety information, the hazard review, operating or maintenance procedures, or training.

## Section 5.175 Prevention Program/Program 3

(a) For each Program 3 process, the owner or operator shall provide the information indicated in paragraphs (b) through (p) of this section. If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(b) The NAICS code for the process.

(c) The name(s) of the substance(s) covered.

(d) The date on which the safety information was last reviewed or revised.

(e) The date of completion of the most recent PHA or update and the technique used.

(1) The expected date of completion of any changes resulting from the PHA;

(2) Major hazards identified;

(3) Process controls in use;

(4) Mitigation systems in use;

(5) Monitoring and detection systems in use; and

(6) Changes since the last PHA.

(f) The date of the most recent review or revision of operating procedures.

(g) The date of the most recent review or revision of training programs;

(1) The type of training provided--classroom, classroom plus on the job, on the job; and

(2) The type of competency testing used.

(h) The date of the most recent review or revision of maintenance procedures and the date of the most recent equipment inspection or test and the equipment inspected or tested.

(i) The date of the most recent change that triggered management of change procedures and the date of the most recent review or revision of management of change procedures.

(j) The date of the most recent pre-startup review.

(k) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit;

(l) The date of the most recent incident investigation and the expected date of completion of any changes resulting from the investigation;

(m) The date of the most recent review or revision of employee participation plans;

(n) The date of the most recent review or revision of hot work permit procedures;

(o) The date of the most recent review or revision of contractor safety procedures; and

(p) The date of the most recent evaluation of contractor safety performance.

## Section 5.180 Emergency Response Program

(a) The owner or operator shall provide in the RMP the following information:

(1) Do you have a written emergency response plan?

(2) Does the plan include specific actions to be taken in response to an accidental releases of a regulated substance?

(3) Does the plan include procedures for informing the public and local agencies responsible for responding to accidental releases?

(4) Does the plan include information on emergency health care?

(5) The date of the most recent review or update of the emergency response plan;

(6) The date of the most recent emergency response training for employees.

(b) The owner or operator shall provide the name and telephone number of the local agency with which the plan is coordinated.

(c) The owner or operator shall list other Federal or state emergency plan requirements to which the stationary source is subject.

## Section 5.185 Certification

(a) For Program 1 processes, the owner or operator shall submit in the RMP the certification statement provided in Section 5.12(b)(4).

(b) For all other covered processes, the owner or operator shall submit in the RMP a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

## Section 5.190 Updates

(a) The owner or operator shall review and update the RMP submitted under 40 CFR 68.150 [dated July 1, 1997] (Section 5.150) as specified in paragraph 5.190(b) and submit it in a method and format to a central point specified by EPA prior to June 21, 1999.

(b) The owner or operator of a stationary source shall revise and update the RMP submitted under 5.150 as follows:

(1) Within five years of its initial submission or most recent update required by paragraphs (b)(2) through (b)(7) of this section, whichever is later;

(2) No later than three years after a newly regulated substance is first listed by EPA;

(3) No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity;

(4) No later than the date on which a regulated substance is first present above a threshold quantity in a new process;

(5) Within six months of a change that requires a revised PHA or hazard review;

(6) Within six months of a change that requires a

revised off-site consequence analysis as provided in 5.36; and

(7) Within six months of a change that alters the Program level that applied to any covered process.

(c) If a stationary source is no longer subject to this part, the owner or operator shall submit a revised registration to EPA within six months indicating that the stationary source is no longer covered.

#### Subpart H--Other Requirements

##### Section 5.200 Record Keeping

The owner or operator shall maintain records supporting the implementation of this regulation for five years unless otherwise provided in subpart D.

##### Section 5.210 Availability of Information to the Public

(a) ~~[The RMP required under subpart G of this part shall be available to the public under 42 U.S.C. 7414(c). The data elements of the plan based upon 40 CFR 68.150 through 68.190 dated July 1, 1997 reprinted under Sections 5.150 through 5.190 of subpart G of this regulation shall be available to the public under 42 U.S.C. 7414(c).]~~

(b) The disclosure of classified information by the Department of Defense or other Federal agencies or contractors of such agencies shall be controlled by applicable laws, regulations, or executive orders concerning the release of classified information.

##### Section 5.215 Permit Content and Designated Agency Requirements

(a) ~~[These requirements~~ **Requirements of this regulation]** apply to any stationary source subject to Section 5.130 and State of Delaware "Regulations Governing the Control of Air Pollution", Regulation No. 30.

The Regulation No. 30 permit for the stationary source shall contain:

(1) A statement listing this part as an applicable requirement;

(2) Conditions that require the source owner or operator to submit:

(i) A compliance schedule for meeting the requirements of this regulation by the date provided in Section 5.10(a) or;

(ii) As part of the compliance certification submitted under Regulation 30 Section 6(c)(5), a certification statement that the source is in compliance with all requirements of this regulation, including the registration and submission of the RMP.

(b) The owner or operator shall submit any additional relevant information requested by the Department.

(c) The Department shall, at a minimum:

(1) Verify that the source owner or operator has

registered and submitted an RMP or a revised plan when required by this part;

(2) Verify that the source owner or operator has submitted a source certification or in its absence has submitted a compliance schedule consistent with paragraph (a)(2) of this section;

(3) For all of the sources subject to this section, use one or more mechanisms such as, but not limited to, a completeness check, source audits, record reviews, or stationary source inspections to ensure that permitted sources are in compliance with the requirements of this part; and

(4) Initiate enforcement action based on paragraphs (c)(1) and (c)(2) of this section as appropriate.

##### Section 6. Additional Delaware Accidental Release Prevention Provisions

This section is not federally enforceable.

##### Section 6.10 Applicability

(a) Processes at the stationary source with regulated substances present in more than the threshold quantity as defined by Section 5.130 Table 1 or 2 of this regulation are not subject to Sections 6.10(b), 6.50 or 6.60.

(b) Processes with the regulated substance having any potential release quantity equal to or greater than the sufficient quantities as defined in either Section 6.20 Table 4, Section 6.30 Table 5 or Section 6.40 Table 6 and not subject to Section 5.130 [see 6.10(a)], shall:

(1) Implement the Risk Management Programs described in Section 5 for the appropriate program level;

(2) Perform a hazard assessment for the Delaware worst-case as required in 6.50;

(3) Submit a Risk Management Plan to the Department that complies with 6.60;

(4) Implement Section 5 Subpart E Emergency Response;

(5) Implement Section 5.200 Record Keeping; and

(6) Implement Section 5.15 Management.

(c) Processes in which ammonia is used as an agricultural nutrient, when held by farmers, is exempt from all provisions of this regulation.

##### Section 6.20 Additional Delaware Regulated Toxic Substances

Table 4 lists the extremely toxic substances and the sufficient quantities at a distance of 100 meters in pounds per hour that are regulated by the State of Delaware only.

(a) Regulated Delaware Toxic Substances and their Sufficient Quantities in pounds per hour at 100 meters.

Note: T=EPA listed toxic F= EPA listed flammable

Table 4: Regulated Delaware Toxic Substances and Sufficient Quantities

Chemical Name	CAS #	Sufficient Quantity (lbs/hr)	EPA Listed
Acrolein	107-02-8	150	T
Acrylyl chloride	814-68-6	200	T
Allylamine	107-11-9	1500	T
Arsine	7784-42-1	70	T
BIS (chloromethyl ether)	542-88-1	70	T
Boron trichloride	10294-34-5	2100	T
Boron trifluoride	7637-07-2	250	T
Bromine pentafluoride	7789-38-2	1600	
Bromine	7726-95-6	700	T
Bromine chloride	13863-41-7	1000	
Carbonyl fluoride	353-58-4	2100	
Chlorine	7782-50-5	1300	T
Chlorine dioxide	10049-04-4	600	T
Chlorine pentafluoride	13637-63-3	700	
Chlorine trifluoride	7790-91-2	1700	
Chloromethyl methyl ether	107-30-2	400	T
Chloropicrin	76-06-2	450	
Cyanogen	460-19-5	1600	F
Cyanogen chloride	506-77-4	300	T
Cyanuric fluoride	675-14-9	40	
Diazomethane	334-88-3	400	
Diborane	19287-45-7	80	T
Dichloroacetylene	7572-29-4	200	
Dichlorosilane	4189-96-8	2500	F
Ethylene fluorohydrin	371-62-8	20	
Ethyleneimine	151-56-4	1000	T
Ethylene oxide	75-21-8	3500	T
Fluorine	7782-41-4	600	T
Formaldehyde	50-00-0	700	T
Furan	110-00-9	300	T
Hexafluoroacetone	684-16-2	7500	
Hydrogen bromide	10035-10-6	3700	
Hydrogen chloride	7647-01-0	3300	T
Hydrogen cyanide	74-90-8	600	T
Hydrogen fluoride	7664-39-3	900	T
Hydrogen selenide	7783-07-5	150	T
Hydrogen sulfide	7783-06-4	3100	T
Iron pentacarbonyl	13463-40-6	200	T
Isopropyl formate	625-55-8	300	
Isopropylamine	75-35-1	4000	
Ketene	463-51-4	70	
Methacryloyl chloride	920-46-7	150	
Methacryloyloxethyl isocyanate	30674-00-7	60	
Methyl acrylonitrile	126-98-7	200	T
Methyl bromide	74-83-9	17000	
Methyl chloroformate	75-22-1	400	T
Methyl disulfide	624-92-0	25	
Methyl fluoroacetate	453-18-9	60	
Methyl fluorosulfate	421-20-5	50	
Methyl hydrazine	60-34-4	90	T
Methyl isocyanate	624-83-9	260	T
Methyl mercaptan	74-93-1	4300	T
Methyl vinyl ketone	78-94-4	15	
Methyltrichlorosilane	75-79-6	2000	T

Nickel carbonyl	13463-39-3	150	
Nitric acid (94.5 wt% or greater)	7697-37-2	300	
Nitric oxide	10102-43-9	200 as NO <sub>2</sub>	
Nitrogen oxides	10102-44-0	200 as NO <sub>2</sub>	
Oleum (65 wt% or greater)	8014-95-7	700 as SO <sub>3</sub>	
Osmium tetroxide	20816-12-0	20	
Oxygen difluoride	7783-41-7	10	
Ozone	10028-15-6	20	
Pentaborane	19624-22-7	20	
Perchloromethyl mercaptan	594-42-3	150	T
Perchloryl fluoride	7616-94-6	3600	
Phosgene	75-44-5	90	T
Phosphine	7803-51-2	30	T
Phosphorous trichloride	7719-12-2	600	T
Propargyl bromide	106-96-7	10	
Sarin	107-44-8	15	
Selenium hexafluoride	7783-79-1	900	
Stibine	7803-52-3	350	
Sulfur dioxide (liquid)	7446-09-5	900	T
Sulfur pentafluoride	5714-22-7	250	
Sulfur tetrafluoride	7783-60-0	200	T
Sulfur trioxide	7446-11-9	700	T
Tellurium hexafluoride	7783-80-4	200	
Tetrafluorohydrazine	10086-47-2	4700	
Thionyl chloride	7719-09-7	200	
Trichloro (chloromethyl) silane	1558-25-4	70	
Trichloro (dichlorophenyl) silane	27137-85-5	1800	
Trichlorosilane	10025-78-2	3300	F
Trimethoxysilane	2487-98-3	600	

(b) Calculation of Sufficient Quantity for Toxic Mixtures.

(1) To determine whether a mixture containing a regulated substance is to be regulated, the owner or operator shall calculate the substance hazard index (SHI) as follows:

$$SHI_{\text{mixture}} = SHI_{\text{pure regulated substance}} \times \text{Mole fraction of regulated substance in mixture}$$

As an alternative, the owner or operator may calculate the SHI of the mixture using equilibrium vapor pressure for the pure regulated substance above the mixture at 20°C.

(2) If the SHI calculated for the mixture is  $\geq 8000$  then the mixture shall be subject to the provision of this regulation.

(3) The sufficient quantity for the mixture shall be calculated as follows:

$$SQ = \frac{SQ_{\text{regulated substance}}}{\text{Weight fraction of regulated substance}}$$

(c) Calculation of Potential Release Quantity (PRQ). Owners or operators with a regulated toxic substance present in a process that is equal to or greater than the sufficient quantity shall calculate the maximum PRQ in accordance with the provisions of paragraph 6.50(b)(8).

(d) Applicability. If any potential release quantity

equals or exceeds the sufficient quantity, then the owner or operator shall develop and implement a risk management program in accordance with Section 6.10(b).

#### Section 6.30 Additional Delaware Regulated Flammable and Combustible Substances

(a) Flammable and Combustible liquids. The following flammable and combustible liquids and gases that are handled, used, produced, or stored equal to or greater than their sufficient quantities shall be regulated.

(1) All flammable gases (a regulated flammable substance that exists as a gas at standard pressure and temperature).

(2) Flammable and combustible liquids that are held at or above their atmospheric boiling point (benzene, gasoline and hexane have been included in Table 5 as examples of these higher boiling combustible substances which can be regulated if enough is present to form a vapor cloud greater than the sufficient quantity); and

(3) Flammable and combustible liquids which are held below ambient temperatures through refrigeration, but whose vapor pressure at 86°F is greater than one atmosphere.

(b) Flammable and combustible liquid exemption. Flammable and combustible liquids handled, used, produced or stored in atmospheric tanks below their atmospheric boiling point without the benefit of chilling or refrigeration

are not regulated herein.

(c) Partial list of flammable and combustible liquids. Table 5 lists some of the most common flammable and combustible substances and their sufficient quantity release rates at a distance of 100 meters in pounds per minute.

Table 5: Partial List of Delaware Regulated Flammable Substances

Chemical Name	CAS #	Boiling Point (°F)	Sufficient Quantity (lbs/min)	EPA Listed
Acetaldehyde	75-07-0	69	4100	F
Acetylene	74-86-2	-118	1900	F
Ammonia	7664-41-7	-28	6700	T
Benzene	71-43-2	176	2600	
1,3 Butadiene	106-99-0	24	2800	F
Butane	106-97-8	31	3000	F
Butene	25167-67-3	21	2800	F
1-Butene	106-98-9	37.8	2700	F
2-Butene	107-01-7	37.8	2700	F
2-Butene trans	624-64-6	34	2800	F
2-Butene cis	590-18-1	38.7	2700	F
Carbon monoxide	7791-21-1	-314	10000	
2-Chloropropylene [1-Propene, 2-chloro]	557-98-2	73	8000	F
Cyclopropane	75-19-4	-29	2800	F
Difluoroethane [Ethane, 1,1-difluoro-]	75-37-6	-61	7300	F
Dimethylamine	124-40-3	45	3000	F
Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1	49	2900	F
Ethane	74-84-0	-128	2800	F
Ethyl acetylene	107-00-6	47	3000	F
Ethyamine	75-04-7	62	4000	F
Ethylene	74-85-1	-155	2300	F
Ethyl chloride	75-00-3	54	4600	F
Gasoline	8006-61-9	100-400	3300	
Hexane	100-64-3	156	2800	
Hydrogen	1333-74-0	-422	300	F
Isobutane [Propane, 2-methyl]	75-28-5	11	2900	F
Isopentane [Butane, 2-methyl]	78-78-4	82	2900	F
Methane	74-82-8	-259	2500	F
Methylamine	74-89-5	21	3900	F
3-Methyl-1-butene	563-45-1	68	3000	F
Methyl Ether	115-10-6	-11	4200	F
2-Methylpropene [1-Propene, 2-methyl-]	115-11-7	20	2900	F
1,3 Pentadiene	504-60-9	-45	2900	F
Propane	74-98-6	-44	2700	F
Propylene	115-07-1	-53	2600	F
1-Propyne	74-99-7	-10	2200	F
Silane	7803-62-5	-169	2200	F
Tetramethylsilane	75-76-3	80	3600	F
Trimethylamine	75-50-3	38	3000	F
Vinyl chloride	75-35-4	7	5300	F
Vinyl fluoride	75-38-7	-97.5	6000	F
Vinyl methyl ether	107-25-5	43	4100	F

(d) Calculation of the sufficient quantity. The sufficient quantity release rate for all flammable and combustible substances at a distance of 100 meters from the stationary source boundary shall be calculated using the following formula and by using propane as the release rate reference substance:

$$SQRR_x = SQRR_p \left( \frac{MW_x}{MW_p} \right)^{0.81} \left( \frac{LFL_x}{LFL_p} \right)^{0.72} \left( \frac{BP_p + 294}{BP_x + 294} \right)^{0.33} \left( \frac{HC_p}{HC_x} \right)^{0.20}$$

where:

$SQRR_x$  = Sufficient Quantity Release Rate for Substance x in lbs vapor/min

$SQRR_p$  = Sufficient Quantity Release Rate for Propane in lbs vapor/min

$MW_x$  = Molecular weight of Substance X

$MW_p$  = Molecular weight of Propane = 44

$LFL_x$  = Lower Flammable Limit of Substance X

$LFL_p$  = Lower Flammable Limit of Substance Propane = 2.1%

$BP_x$  = Boiling Point of Substance X in °K

$BP_p$  = Boiling Point of Propane in °K = 229°K

$HC_p$  = Heat of Combustion of Propane in Btu/lb = 19,944 Btu/lb

$HC_x$  = Heat of Combustion of Substance X in Btu/lb

(e) Calculation of Potential Release Quantity. Owners or operators with a regulated flammable or combustible substance present in a process that is equal to or greater than the sufficient quantity shall calculate the maximum PRQ in accordance with the provisions of paragraph 6.50(b)(8).

(f) Applicability. If any potential release quantity equals or exceeds the sufficient quantity, then the owner or operator shall develop and implement a risk management program in accordance with Section 6.10(b).

#### Section 6.40 Delaware Regulated Explosive Substances

(a) Delaware regulated explosive substances are listed in Table 6 with their sufficient quantities in pounds at 100 meters.

Table 6: Delaware Regulated Explosive Substances

Chemical Name	CAS #	Sufficient Quantity (lbs)	EPA Listed
Alkylaluminums (as tri-n-butylaluminum)	1116-70-7	4700	
Ammonium perchlorate	7790-98-9	6900	
Ammonium nitrate	6484-52-2	6200	
Ammonium permanganate	13446-10-1	6900	
Bromine trifluoride	7787-71-5	15000	
3-Bromopropyne	106-96-7	6100	
Butyl Hydroperoxide (tertiary)	75-91-2	3600	
Butyl Perbenzoate (tertiary)	614-45-9	6300	
Butyl Peroxyacetate (tertiary)	107-71-1	4300	
Butyl Peroxypivalate (tertiary)	927-07-1	8600	
Cellulose nitrate (not explosive grade)	9004-70-0	2300	
Chlorodiethylaluminum	96-10-6	4100	
1-Chloro-2,4-dinitrobenzene	97-00-7	3000	
Cumene hydroperoxide	80-15-9	4400	
Diacetyl peroxide (55% solution)	110-22-5	4200	
Dibenzoyl peroxide	94-36-0	6100	
Dibutyl peroxide (Tertiary)	110-05-4	4700	
Diethylzinc	557-20-0	7700	
Diisopropyl peroxydicarbonate	105-64-6	5200	
Dilauroyl peroxide	105-74-8	5800	
2, 4-Dinitroaniline	97-02-9	3000	
1,2-Dinitrobenzene, ortho	528-29-0	2700	
1,3-Dinitrobenzene, meta	99-65-0	2700	
1,4-Dinitrobenzene, para	100-25-4	2700	
2,3-Dinitrotoluene	602-01-7	3100	

2,4-Dinitrotoluene	121-14-2	3100	
2,5-Dinitrotoluene	619-15-8	3100	
2,6-Dinitrotoluene	606-20-2	3100	
3,4-Dinitrotoluene	610-39-9	3100	
3,5-Dinitrotoluene	618-85-8	3100	
Ethyl methyl ketone peroxide	19393-67-0	2700	
Ethyl nitrite	109-95-5	2800	F
Hydrogen peroxide (52% by weight or greater)	7722-84-1	5700	
Hydroxylamine	7803-49-8	2500	
2-Nitroaniline, ortho	88-74-4	3800	
3-Nitroaniline, meta	90-09-2	3800	
4-Nitroaniline, para	100-01-6	3800	
Nitroethane	79-24-3	2800	
Nitromethane	75-52-5	2300	
Perchloric acid	7601-90-3	12000	
Peroxyacetic Acid (60% acetic acid solution)	79-21-0	3200	T
Picric acid	88-89-1	2500	
Propyl Nitrate (normal)	627-13-4	2700	
Tetrafluoroethylene monomer	116-14-3	7500	F
1,2,4-Trinitrobenzene		2300	
2,3,4-Trinitrotoluene	602-29-3	2600	
2,3,5-Trinitrotoluene		2600	
2,3,6-Trinitrotoluene		2600	
2,4,5-Trinitrotoluene	610-25-3	2600	
2,4,6-Trinitrotoluene	118-96-7	2600	
3,4,5-Trinitrotoluene		2600	

\* When data was not available, TNT equivalents assumed to be 1:1. Processes subject to this section may use actual data in calculating sufficient quantity.

(b) Calculation of Potential Release Quantity. The potential release quantity for explosive substances is the sum of all physical quantities which are used, handled, produced, or stored in the process and which are neither separated by a distance of 100 meters nor are barricaded as defined in the explanatory notes for NFPA 495, Table 6-4.1.

(c) Applicability. If any potential release quantity equals or exceeds the sufficient quantity, then the owner or operator shall develop and implement a risk management program in accordance with Section 6.10(b).

#### Section 6.50 Delaware Hazard Assessment

(a) The Delaware Hazard Assessment. The owner or operator of a stationary source subject to Section 6.10(b) shall prepare a Delaware worst-case release scenario analysis as provided in Section 6.50(b) of this section and complete the five-year accident history as provided in Section 5.42. The owner or operator of a Program 2 process must comply with Section 5 Subpart C and the owner or operator of a Program 3 process must comply with Section 5 Subpart D. The Delaware hazard assessment shall include:

- (1) An estimate of the potential release quantity;
- (2) A dispersion analysis in the case the scenario is

for a regulated toxic, flammable or combustible substance;

(3) An overpressure grid in the case the scenario is for a regulated explosive substance; and

(4) A consequence analysis of the effects on surrounding populations.

(b) Off-site consequence analysis parameters.

(1) Endpoints. For analyses of off-site consequences, the following endpoints shall be used:

(i) Toxic substances. The toxic endpoints that shall be used in determining the distance to endpoint are as follows and the order that follows shall determine which endpoint should be used if a substance is listed on several of the lists named below:

(A) AIHA 1997, ERPG-3 will be considered before;

(B) Acute Toxicities from New Jersey "Toxic Catastrophe Prevention Act" (TCPA) which will be considered before;

(C) Levels of concern from EPA's "Technical Guidance for Hazard Analysis: Emergency Planning for Extremely Hazardous Substances, December 1987" also known as the *Green Book*.

(ii) Flammable substances. The endpoint for regulated flammable and combustible substances shall be the radiant heat necessary to create second degree burns from a vapor cloud fire 100 meters from the source of the release or 1020.48 kj/sec m<sup>2</sup>. The dispersion analysis shall account for movement of the vapor cloud under average Delaware

weather conditions prior to ignition.

(iii) Explosive substances. The endpoint shall be the amount of overpressure necessary to cause eardrum rupture 100 meters from the release or 2.3 psi.

(2) Wind speed/atmospheric stability class. For the Delaware worst-case release analysis, the owner or operator shall use average Delaware weather conditions consisting of a wind speed of 4.3 meters per second and atmospheric stability class of D.

(3) Ambient temperature/humidity. For worst-case release analysis of a regulated toxic substance, the owner or operator shall use 86 °F. An owner or operator may use 25 °C when using the RMP Off-site Consequence Analysis Guidance.

(4) Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release.

(5) Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed.

(6) Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density.

(7) Temperature of released substance. For worst case, liquids other than gases liquified by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher.

(8) Maximum potential release rates for the Delaware worst-case scenario shall be calculated considering the following:

(i) Catastrophic line failure (flow from both ends);

(ii) Catastrophic hose failure (flow from both ends);

(iii) Exposure of vessels and equipment to fire;

(iv) Venting of pressure relief valve at relief system design basis; and

(v) Failure of mitigating systems such as flares, scrubbers, isolation valves, excess flow valves, and cooling systems.

(vi) Graphs and calculations were developed and were included in the "Background Document, September 25, 1989". These calculation and graphs (reproduced below) provide one method of calculating the maximum potential release quantity. The method of calculation must be approved by the Department and submitted with Delaware RMP, if different from the approach described below.

(A) To calculate the potential release quantity of a gas (not a flashing liquid), the following equation may be used to determine the release rate:

$$RR = \frac{(RR_R)(OED)^2}{(OED_R)^2} \left[ \frac{(MW)(P)(528)}{(16)(P_R)(T+460)} \right]^{0.5}$$

where:

RR = the release rate of the actual regulated substance in pounds/min.

RR<sub>R</sub> = a the release rate for methane estimated in lbs/min from Graph 1 or 2;

OED = the opening equivalent diameter in inches;  
MW = the molecular weight of the actual substance released;

P = the pressure inside the vessel or pipe prior to the release in psig;

OED<sub>R</sub> = the size of reference opening equivalent diameter from Graph 1 or 2;

P<sub>R</sub> = the pressure of methane curve from Graph 1 or 2 nearest the pressure of the pressure of the actual substance; and

T = temperature of the substance prior to the release in °F;

(aa) For regulated toxic substances the maximum potential release quantity is equal to RR X 60 minutes;

(bb) For regulated flammable and combustible substances the maximum potential release quantity is equal to RR if the release is sustainable for a minimum of 35 seconds. Otherwise it is the actual quantity; and

(cc) A process becomes a covered process and is subject to Section 6.10(b) when the maximum potential release quantity is greater than or equal to the sufficient quantity.

(B) To calculate the potential release quantity for a flashing liquid release, the following equation may be used to determine the release rate:

$$RR = \frac{(RR_R)(OED)^2}{(OED_R)^2} \left[ \frac{(Den)(P)}{(39.32)(P_R)} \right]^{0.5}$$

where:

RR = the release rate of the actual regulated substance in pounds/min.

RR<sub>R</sub> = the release rate for propane estimated in lbs/min from Graph 3 or 4;

OED = the opening equivalent diameter in inches;

Den = the liquid density of the actual substance released prior to the release in lb/ft<sup>3</sup>;

P = the pressure inside the vessel prior to the release in psig;  
 OED<sub>R</sub> = the size of reference opening equivalent diameter from Graph 3 or 4; and  
 P<sub>R</sub> = the pressure of propane curve from Graph 3 or 4 nearest the pressure of the pressure of the actual substance.

(aa) For flashing liquids whose boiling points are greater than 5 °C, a pool of cold liquid can form when the storage area is diked. The release rate is used to calculate the size of the pool that is formed by the substance being released. The potential release quantity is calculated based on the surface area of the pool in square feet multiplied by the pool vaporization factor from Graph 5. For situations when there is no dike or for flashing liquids whose boiling points are less than or equal to 5 °C, assume that the liquid volatilizes immediately upon release and that RR is the maximum potential release quantity.

(bb) For regulated toxic substances the maximum potential release quantity is equal to RR X 60 minutes;

(cc) For regulated flammable and combustible substances the maximum potential release quantity is equal to RR if the release is sustainable for a minimum of 35 seconds. Otherwise it is the actual quantity; and

(dd) A process becomes a covered process and is subject to Section 6.10(b) when the maximum potential release quantity is greater than or equal to the sufficient quantity.

(C) To calculate the potential release quantity for a liquid release (not a flashing liquid), the equation below may be used to determine the release rate:

$$RR = \frac{(RR_R)(OED)^2}{(OED_R)^2} \left[ \frac{(Den)(P)}{(39.32)(P_R)} \right]^{0.5}$$

where:

RR = the release rate of the actual regulated substance in pounds/min.  
 RR<sub>R</sub> = the release rate for gasoline estimated in lbs/min from Graph 6 or 7;  
 OED = the opening equivalent diameter in inches;  
 Den = the liquid density of the actual substance released prior to the release;

P = the pressure inside the vessel prior to the release in psig;  
 OED<sub>R</sub> = the size of reference opening equivalent diameter from Graph 6 or 7; and  
 P<sub>R</sub> = the pressure of gasoline curve from Graph 6 or 7 nearest the pressure of the pressure of the actual substance.

The release rate is used to calculate the size of the pool that is formed by the substance being released. The potential release quantity is calculated based on the surface area of the pool in square feet multiplied by the pool vaporization factor from Graph 5.

(D) To determine the potential release quantity, RR calculated above must be doubled if the release is from a pipe or hose where it is possible to get flow from both ends of the breakage; otherwise the PRQ = RR.

(aa) For combustible liquids, a pool of liquid can form when the storage area is diked. The release rate is used to calculate the size of the pool that is formed by the substance being released. The potential release quantity is calculated based on the surface area of the pool in square feet multiplied by the pool vaporization factor from Graph 5. For situations when there is no dike, assume that the pool depth is 1 centimeter.

(bb) For regulated toxic substances the maximum potential release quantity is equal to RR X 60 minutes;

(cc) For regulated flammable and combustible substances the maximum potential release quantity is equal to the vapor release rate if the release is sustainable for a minimum of 35 seconds. Otherwise it is the actual quantity; and

(dd) A process becomes a covered process and is subject to Section 6.10(b) when the maximum potential release quantity is greater than or equal to the sufficient quantity.

9) For explosive substances, the potential release quantity is the sum of all physical quantities which are used, handled, produced, or stored in the process. Processes separated by a distance of 100 meters or barricaded as defined in NFPA 495, Explanatory notes for Table 6-4.1 "American Table of Distances", shall be considered multiple processes. One method for determining the distance to endpoint for an explosive substance that may be used is the TNT equivalent method such as:

$$D = K W^{1/3}$$

where:

D is the distance to endpoint for a given overpressure;  
 W is the mass of TNT detonated, and  
 K is the scaled distance or 24 for 2.3 psi overpressure.

To approximate W, the weight of regulated substance is multiplied by a yield factor (3% to 10%) and is multiplied by the ratio of the heat of combustion of the regulated substance to the heat of combustion of TNT.

(c) Delaware Worst-case release scenario analysis.

(1) The owner or operator shall analyze and report in the Delaware Risk Management Plan:

(i) For Program 1 processes, one worst-case release scenario for each Program 1 process;

(ii) For Program 2 and 3 processes:

(A) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint resulting from an accidental release of regulated toxic substances from covered processes under worst-case conditions defined in Section 6.50(b); and

(B) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint defined in Section 6.50(b) resulting from an accidental release of regulated flammable substances from covered processes under worst-case conditions defined in Section 6.50(b).

(C) One worst-case release scenario that is estimated to create the greatest distance in any direction to an endpoint defined in Section 6.50(b) resulting from the detonation of the regulated explosive substance from covered processes under worst-case conditions defined in Section 6.50(b).

(D) Additional worst-case release

scenarios for a hazard class if a worst-case release from another covered process at the stationary source potentially affects public receptors different from those potentially affected by the worst-case release scenario developed under paragraphs (A) or (B) of this section.

(2) Parameters to be applied. The owner or operator shall use the parameters defined in Section 6.50(b) to determine distance to the endpoints. The owner or operator may use the methodology provided in the RMP Off-site Consequence Analysis Guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the owner or operator allows the Department access to the model and describes model features and differences from publicly available models to local emergency planners upon request. The owner or operator may also use the following look-up tables to determine the distance to endpoint (where AQ/SQ represents the ratio of the actual quantity of a regulated substance contained in a process to the sufficient quantity for that substance):

(i) Table 7: Distance to Endpoint for Delaware Regulated-Toxic Substances<sup>1</sup>

AQ/SQ	Distance to Endpoint (meters)	Distance to Endpoint (miles)
1.0	100	0.06
2.0	143.10	0.09
2.5	161.11	0.10
3.0	177.45	0.11
4.0	208.29	0.13
5.0	235.03	0.15
7.5	294.91	0.18
10.0	346.72	0.22
25.0	590.66	0.37
50.0	905.11	0.56

<sup>1</sup> This Table was developed from Section 5.2.2.2 the toxic Distance Multipliers Table II from the "Regulation for the Management of Extremely Hazardous Substances, September 25, 1989.

(ii) Table 8: Distance to Endpoint for Delaware Regulated Flammable Substances<sup>2</sup>

AQ/SQ	Distance to Endpoint (meters)	Distance to Endpoint (miles)
1.0	100	0.06
2.0	146.29	0.09
2.5	165.89	0.10
3.0	182.62	0.11
4.0	214.83	0.13
5.0	243.90	0.15
7.5	305.90	0.19
10.0	359.30	0.22
25.0	589.41	0.37
50.0	870.80	0.54

<sup>2</sup> This Table was developed from Section 5.3.3.3 the flammable Distance Multipliers Table IV from the "Regulation for the Management of Extremely Hazardous Substances, September 25, 1989.

(iii) Table 9: Distance to Endpoint for Delaware Regulated Explosive Substances<sup>3</sup>

<b>AQ/SQ</b>	<b>Distance to Endpoint (meters)</b>	<b>Distance to Endpoint (miles)</b>
1.0	100	0.06
2.0	121.01	0.08
2.5	131.51	0.08
3.0	142.02	0.09
4.0	156.71	0.10
5.0	167.53	0.10
7.5	194.59	0.12
10.0	213.11	0.13
25.0	291.20	0.18
50.0	366.86	0.22

<sup>3</sup> This Table was adapted from Section 5.4.3.2 the explosive Distance Multipliers Table VI from the "Regulation for the Management of Extremely Hazardous Substances, September 25, 1989.

(3) Consideration of passive mitigation. Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended.

(4) Factors in selecting a worst-case scenario. Notwithstanding the provisions of paragraph (2) of this section, the owner or operator shall select as the worst-case for flammable regulated substances or the worst-case for regulated toxic substances, a scenario based on the following factors if such a scenario would result in a greater distance to an endpoint defined in Section 6.50(b) beyond the stationary source boundary than the scenario provided under paragraph (2) of this section:

(i) Smaller quantities handled at higher process temperature or pressure; and

(ii) Proximity to the boundary of the stationary source.

(d) Defining off-site impacts--population.

(1) The owner or operator shall estimate in the Delaware Risk Management Plan the population within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in 6.50(b).

(2) Population to be defined. Population shall include residential population. The presence of institutions (schools, hospitals, prisons), parks and recreational areas, and major commercial, office, and industrial buildings shall be noted in the RMP.

(3) Data sources acceptable. The owner or operator may use the most recent Census data, or other updated information, to estimate the population potentially affected.

(4) Level of accuracy. Population shall be estimated to two significant digits or one significant digit if the population is less than 1000.

(e) Defining off-site impacts--environment.

(1) The owner or operator shall list in the RMP environmental receptors within a circle with its center at the point of the release and a radius determined by the distance to the endpoint defined in Section 6.50(b) of this part.

(2) Data sources acceptable. The owner or operator may rely on information provided on local U.S. Geological Survey maps or on any data source containing U.S.G.S. data to identify environmental receptors.

**6.60 Delaware Risk Management Plan**

(a) Submission.

(1) The owner or operator subject to 6.10(b) shall submit a single Delaware Risk Management Plan that includes the information required by 6.60(b) through (j) for all covered processes. The Delaware Risk Management Plan shall be submitted on a form provided by the Department to a location specified by the Department prior to June 21, 1999. The Department may establish procedures for the submission of information under this section on ~~magnetic~~ **electronic** media. The submission of information in accordance with such procedures by owners or operators of covered processes shall satisfy the associated requirement to submit the information in a paper format.

(2) The owner or operator shall submit the first Delaware Risk Management Plan no later than the latest of the following dates:

(i) June 21, 1999;

(ii) Six months after the date on which a newly regulated substance is first listed in Section 6; or

(iii) The date on which a regulated substance is first present above a threshold quantity in a process.

(3) Subsequent submissions of Delaware Risk Management Plans shall be in accordance with Section 6.60(j).

~~[(4) Notwithstanding the provisions of Sections 6.60(b) through (j), the Delaware Risk Management Plan shall be consistent with 7 Delaware Code, Chapter 77, Section 7710(b).]~~

(b) Executive summary. The owner or operator shall provide in the Delaware Risk Management Plan an executive summary that includes a brief description of the same elements given in Section 5.155(a) through (g).

(c) Registration.

(1) The owner or operator shall complete a single registration form and include it in the Delaware Risk Management Plan. The form shall cover all regulated substances handled in covered processes.

(2) The registration shall include the same data that is described in Section 5.160(b).

(d) Off-site consequence analysis.

(1) The owner or operator shall submit in the Delaware Risk Management Plan information:

(i) One Delaware worst-case release scenario for each Program 1 process; and

(ii) For Program 2 and 3 processes, one Delaware worst-case release scenario to represent

(A) All regulated toxic substances with any potential release quantity that is greater than the sufficient quantity;

(B) All regulated flammable substances with any potential release quantity that is greater than the sufficient quantity; and

(C) All regulated explosive substance with any potential release quantity that is greater than the sufficient quantity.

(iii) If additional Delaware worst-case scenarios for toxics, flammables, or explosives are required by Section 6.50(c)(1)(ii)(D), the owner or operator shall submit the same information on the additional scenario(s).

(2) The owner or operator shall submit in the Delaware Risk Management Plan the following data:

(i) Chemical name;

(ii) Physical state (toxics and flammables only);

(iii) Basis of results (give model name if used);

(iv) Scenario (explosion, fire, toxic gas release, or liquid spill and vaporization);

(v) Quantity released in pounds;

(vi) Release rate (toxics and flammables only);

(vii) Release duration (toxics and flammables only);

(viii) Wind speed and atmospheric stability class (toxics and flammables only);

(ix) Topography (toxics and flammables only);

(x) Distance to endpoint;

(xi) Public and environmental receptors within the distance; and

(xii) Passive mitigation considered.

(e) Five-year accident history. The owner or operator shall submit in the Delaware Risk Management Plan the information provided in Section 5.42(b) on each accident covered by Section 5.42(a).

(f) Prevention program/Program 2. For each Program 2 process, the owner or operator shall provide in the Delaware Risk Management Plan the information indicated in Section 5.170(b) through (k). If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(g) Prevention program/Program 3. For each Program 3 process, the owner or operator shall provide the information indicated in Section 5.175(b) through (p). If the same information applies to more than one covered process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(h) Emergency response program.

(1) The owner or operator shall provide in the Delaware Risk Management Plan the same information that is described in Section 5.180.

(i) Certification.

(1) For Program 1 processes, the owner or operator shall submit in the Delaware Risk Management Plan the certification statement provided in Section 5.12(b)(4).

(2) For all other covered processes, the owner or operator shall submit in the Delaware Risk Management Plan a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

(j) Updates.

(1) The owner or operator shall review and update the Delaware Risk Management Plan as specified in paragraph 6.60(j)(2) of this section and submit it on a form provided by the Department prior to June 21, 1999.

(2) The owner or operator of a covered process shall revise and update the Delaware Risk Management Plan submitted under Section 6.60 ~~[as follows within five years of the initial submission or sooner updates as required by the following:]~~

(i) ~~[(i) Within five years of the initial submission or the most recent update required paragraphs 6.60(j)(2)(ii) through (vii), whichever is later;]~~

~~[(ii) No later than six months after a newly regulated substance is first listed by the Department;~~

~~[(iii) No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity;~~

~~[(iv) No later than the date on which a regulated substance is present above a threshold quantity in a new process;~~

[(v) iv] Within six months of a change that requires a revised process hazard assessment or hazard review;

[(v) v] Within six months of a change that requires a revised off-site consequence analysis as provided in Section 5.36; and

[(v) vi] Within six months of a change that alters the program level that applied to any covered process.

(3) If a covered process is no longer subject to this part, the owner or operator shall submit a revised registration to the Department within six months indicating that the process is no longer covered.

**Section 7. Inspections**

(a) **Minimum Inspection Components.** All documentation required by this regulation shall be maintained by the Owner or operator of the stationary source and shall be available on site for review by the Department. At a minimum, inspections of stationary source risk management programs include:

(1) Review of selected risk management program documentation including evidence of the application of engineering and maintenance standards associated with regulated substance;

(2) A physical onsite inspection of equipment associated with regulated substance; and

(3) Interviews of selected stationary source personnel involved with regulated substance.

(b) **Inspection Protocol.** The inspection protocol shall consist of:

(1) Appendix A “PSM Audit Guidelines” from the OSHA Compliance Directive CPL 2-2.45A (change-1) dated September 1994,

(2) EPA audit guidance and protocol, and

(3) The compliance of a covered process shall be determined by physical inspections conducted:

(i) By trained and tested state personnel or their designated trained and qualified representatives, and

(ii) By interviews with stationary source personnel.

(c) **Access to Facilities and Records.** The Department has the right to enter any stationary source at any time to verify compliance with this regulation. Inspections for the [sole] purpose of document review shall be scheduled with owner or operator of the stationary source management with reasonable advance notice, and when possible, mutual agreement.

(d) **Findings of Compliance or Noncompliance.** Department findings of compliance or noncompliance with risk management program requirements shall be provided in writing to the stationary source management no later than forty-five (45) days following completion of the inspection. Significant items of noncompliance shall be communicated directly to the stationary source management by the

Department during an exit interview. If deficiencies or omissions in the risk management program are identified, the Department shall issue a written notice of noncompliance and recommend program improvements. Within sixty (60) days after receiving the Department's recommendations, the owner or operator of the stationary source shall notify the Department of changes and additions to improve the risk management program or shall present a remediation plan and schedule for the Department's approval.

(e) **Resolution of Findings of Noncompliance.**

(1) If the owner or operator of the stationary source and the Department agree on measures to correct risk management program deficiencies or omissions, the parties may enter into a written agreement.

(2) If the Department and owner or operator of the stationary source fail to agree on improvements to the risk management program following Department notice of noncompliance as provided above and following an administrative hearing with written findings, as provided for in 7 Del. C., Section 7716 and Section 11 of this regulation, the Department shall issue an administrative order requiring correction of risk management program deficiencies including a schedule for corrections as provided for in 7 Del. C., Section 7715.

(3) If a functioning risk management program is lacking and a situation exists which threatens real and imminent jeopardy to the lives and health of persons in the vicinity of the stationary source, the Department shall promptly seek Chancery Court injunctive relief as provided for in 7 Del. C., Section 7715.

**Section 8. Audits**

(a) **RMP Audit.** In addition to inspections for the purpose of regulatory development and enforcement, the Department shall audit all RMPs submitted pursuant to Section 5, Subpart G and the Delaware risk management plans submitted under Section 6.60 within six months of the date that they are received by the Department or posted by EPA.

(b) **Access to Information.** The Department shall have access to the stationary source, supporting documentation, and any area where an accidental release could occur.

(c) **Preliminary Audit Determination.** Based on the audit, the Department may issue the owner or operator of a stationary source a written preliminary determination of necessary revisions to the stationary source's RMP to ensure that the RMP meets the criteria of Section 5 Subpart G. The preliminary determination shall include an explanation for the basis for the revisions, reflecting industry standards and guidelines (such as AIChE/CCPS guidelines and ASME and API standards) to the extent that such standards and guidelines are applicable, and shall include a timetable for their implementation.

(d) **Written response to a preliminary determination.**

(1) The owner or operator shall respond in writing to a preliminary determination made in accordance with paragraph (c) of this section. The response shall state the owner or operator will implement the revisions contained in the preliminary determination in accordance with the timetable included in the preliminary determination or shall state that the owner or operator rejects the revisions in whole or in part. For each rejected revision, the owner or operator shall explain the basis for rejecting such revision. Such explanation may include substitute revisions.

(2) The written response under paragraph (d)(1) of this section shall be received by the Department within 60 days of the issue of the preliminary determination or a shorter period of time as the Department specifies in the preliminary determination as necessary to protect public health and the environment. Prior to the written response being due and upon written request from the owner or operator, the Department may provide in writing additional time for the response to be received.

(e) Final Audit Determination. After providing the owner or operator an opportunity to respond under paragraph (d) of this section, the Department may issue the owner or operator a written final determination of necessary revisions to the stationary source's RMP. The final determination may adopt or modify the revisions contained in the preliminary determination under paragraph (c) of this section or may adopt or modify the substitute revisions provided in the response under paragraph (d) of this section. A final determination that adopts a revision rejected by the owner or operator shall include an explanation of the basis for the revision. A final determination that fails to adopt a substitute revision provided under paragraph (d) of this section shall include an explanation of the basis for finding such substitute revision unreasonable.

(f) Determination of Violations. Thirty days after completion of the actions detailed in the implementation schedule set in the final determination under paragraph (e) of this section, the owner or operator shall be in violation of Section 5 Subpart G, 7 Del. C., Section 7714(b)(1) and this section unless the owner or operator revises the RMP prepared under Section 6 Subpart G as required by the final determination, and submits the revised RMP as required under Section 5.150.

(g) Public Access to Determinations. The public shall have access to the preliminary determinations, responses, and final determinations under this section in a manner consistent with Section 14 (a) of this Regulation.

(h) Nothing in this section shall preclude, limit, or interfere in any way with the authority of Department to exercise its enforcement, investigation, and information gathering authorities concerning this regulation. Nothing in this section shall preclude, limit or interfere in any way with the authority granted to EPA under the Clean Air Act of 1990 and codified at 40 U.S.C. 7401 *et seq.*

#### Section 9. Violations and Penalties

Any person who fails to comply with this regulation shall be subject to the enforcement and penalty provisions set forth in 7 Del. C., Section 7714. A substantially complete risk management program is in compliance with all applicable parts of either Section 5 or Section 6. Failure to meet these provisions is considered to be substantial non-compliance.

#### Section 10. Hearings

Any public hearing held by the Secretary pursuant to this regulation shall be held in accordance with 7 Del. C., Section 6006, as well as any additional notice and hearing requirements adopted by the Department by regulation.

#### Section 11. Appeals

(a) Any person(s) whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board in accordance with 7 Del. C., Section 6008.

(b) Any person(s), jointly or severally, or any taxpayer, or any officer, department board or bureau of the State, aggrieved by any decision of the Environmental Appeals Board, may appeal to the Superior Court in accordance with 7 Del. C., Section 6009.

#### Section 12. State Agency Notification

Every State agency having authority to grant construction or operating permits to covered processes having regulated substances on-site shall notify the Department in writing prior to granting any permits and shall confirm that the owner or operator has been informed of the Regulatory requirements of this regulation.

#### Section 13. Annual Fees

[As provided for in 7 Del. C., Section 7714.

~~(a) Fee Structure. For each process containing a regulated substance with a potential release quantity equal to or greater than the sufficient quantity or with an actual quantity equal to or greater than the threshold quantity for that regulated substance, the fee shall be a minimum of five hundred dollars (\$500) per year for the first unit and twenty-five dollars (\$25) for each additional unit up to a maximum of 300 units per stationary source.~~

~~(b) Calculation of units.~~

~~(1) For stationary sources subject to Section 5.130, the fee will be \$500 for the first unit and \$25 for each unit thereafter. A unit is determined by the nearest whole number resulting from the division of the actual quantity by the threshold quantity from Section 5.130 Table 1 or Table 2.~~

~~(2) For stationary sources subject to Section 6.20, 6.30 or 6.40, the fee will be \$500 for the first unit~~

~~and \$25 for each unit thereafter. A unit is determined by the nearest whole number resulting from the division of the actual quantity by the sufficient quantity from either Section 6.20 Table 4, Section 6.30 Table 5, or Section 6.40 Table 6 whichever is greater.~~

~~(3) There is a 300 unit cap for each stationary source.~~

~~(4) Propane storage tanks and ammonia nitrate storage facilities will be considered as having one unit regardless of the actual quantity.~~

~~(b) Additional Fees:~~

~~(1) In addition to the annual registration fees, the Department shall assess a fee to cover additional Department costs incurred for risk management plan audits or risk management program inspections which cannot be accomplished in a timely way due to inaccurate or incomplete risk management program documentation or records required for inspection.~~

~~(2) When an additional fee is assessed, the Department shall document its findings justifying the fee assessment, and shall provide a copy to the owner or operator of the stationary source.]~~

Section 14. Miscellaneous

(a) Confidential Information. All documents (such as, but not limited to: inspection reports, responses to inspection reports, notices of violation, Administrative Orders and Penalties, correspondences, RMPs and Delaware risk management plans) submitted to the Department or developed by the Department pursuant to this regulation shall be handled consistent with the Freedom of Information Act (29 Del. C., Chapter 100) with the exception of the following which shall be maintained as confidential by the Department as required by 7 Del. C., Section 7711(b):

(1) Sections of Inspection Notes containing or relating to trade secrets, and/or commercial or financial information observed, viewed or obtained orally during an inspection that may result in substantial harm to a business' competitive edge.

(2) Sections of Inspection Notes containing the identity of persons interviewed during an inspection.

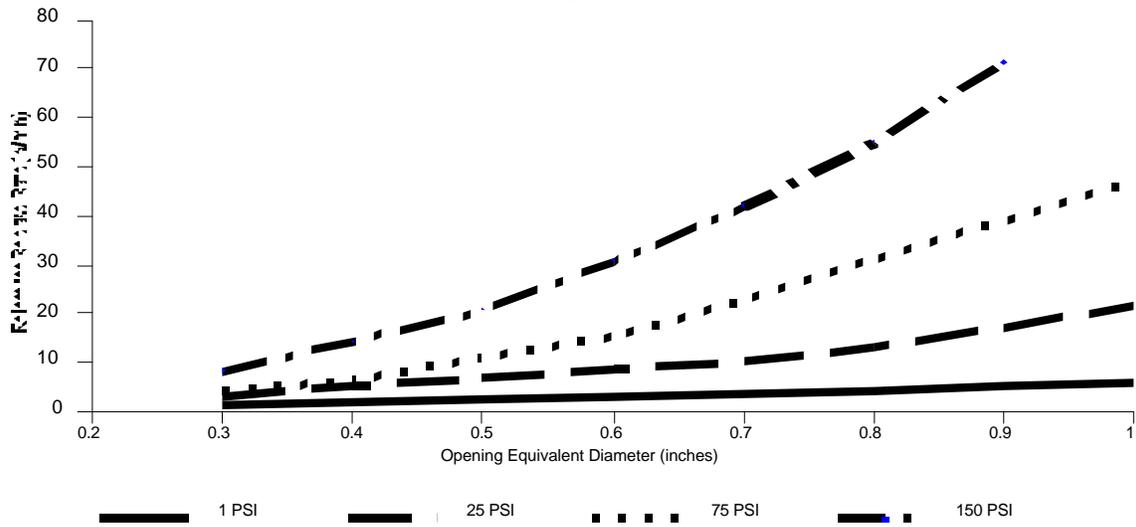
(b) Severability. If any part of this regulation, or the application of any part thereof, is held invalid or unconstitutional, the application of such part to other persons or circumstances and the remainder of this regulation shall not be affected and shall be deemed valid and effective.

(c) Transfer of Registration. Registration under this regulation may be transferred to a new owner provided that an intention to transfer accompanied by a copy of the registration, signed by both the transferor and the transferee, is provided to the Department at least 10 days prior to the transfer. A complete RMP or the Delaware risk management plan must be submitted in accordance with either Section 5.190(b)(3) or Section 6.60(j)(2)(iii)

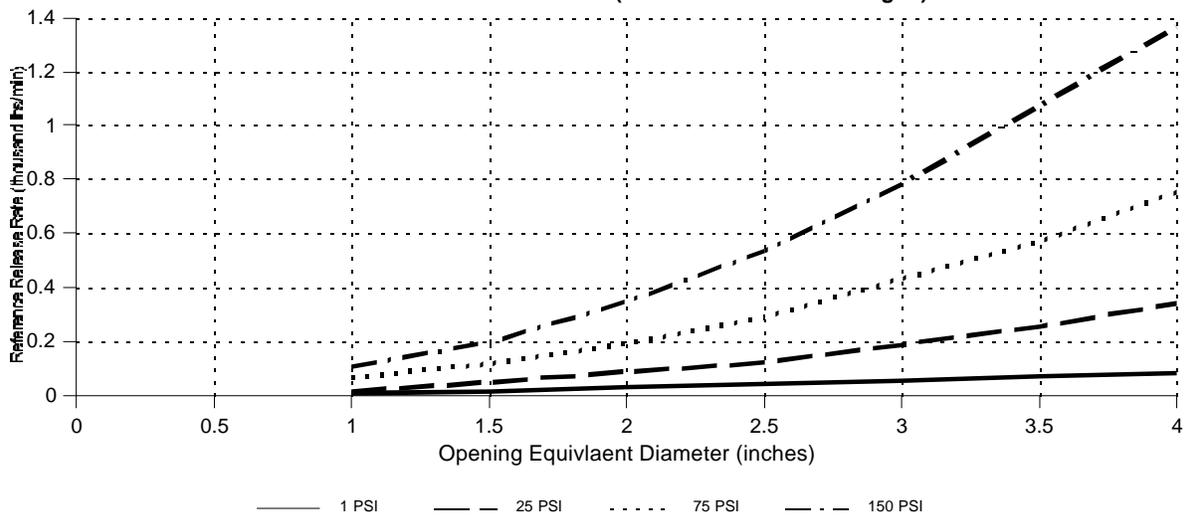
whichever is applicable.

(d) Scope of Regulations. This regulation shall apply to all covered processes located in whole or in part within the State of Delaware containing one or more regulated substances.

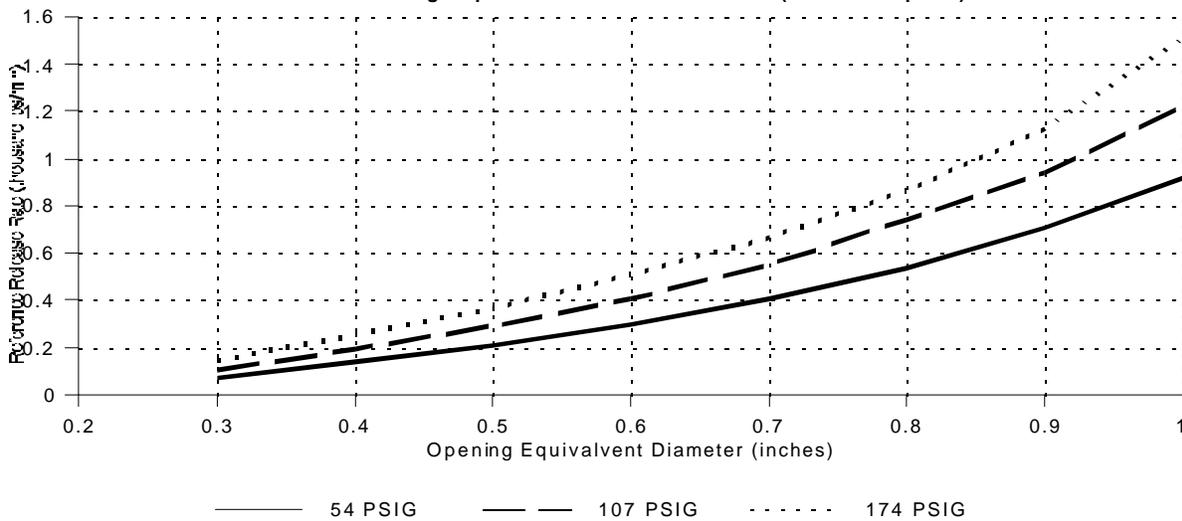
**GRAPH 1: Gas Release Rate Estimate (Basis: Methane at 68 deg. F)**

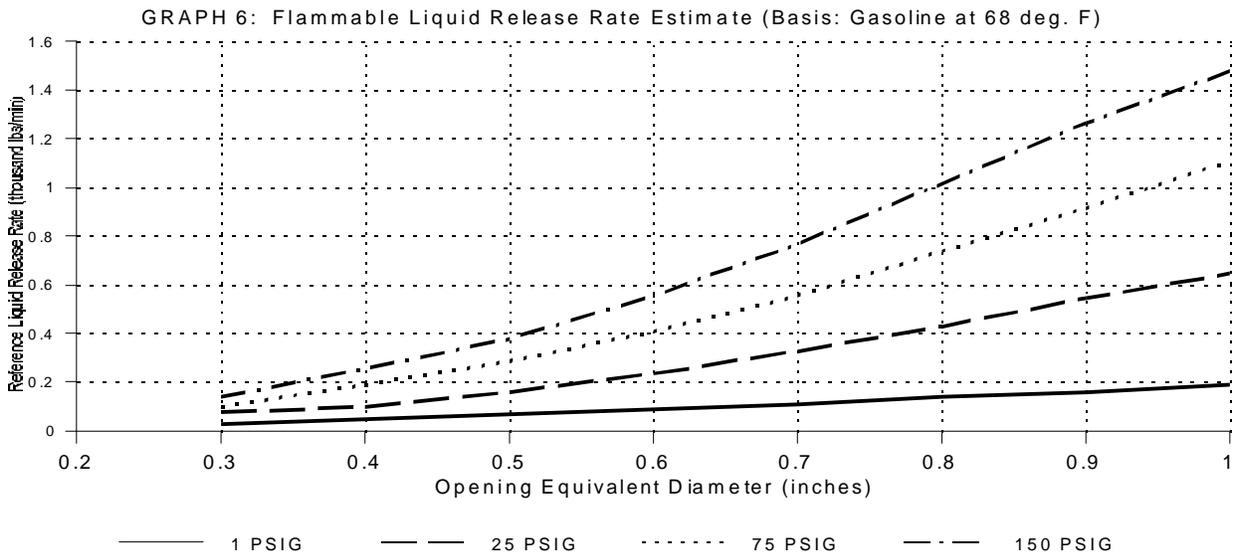
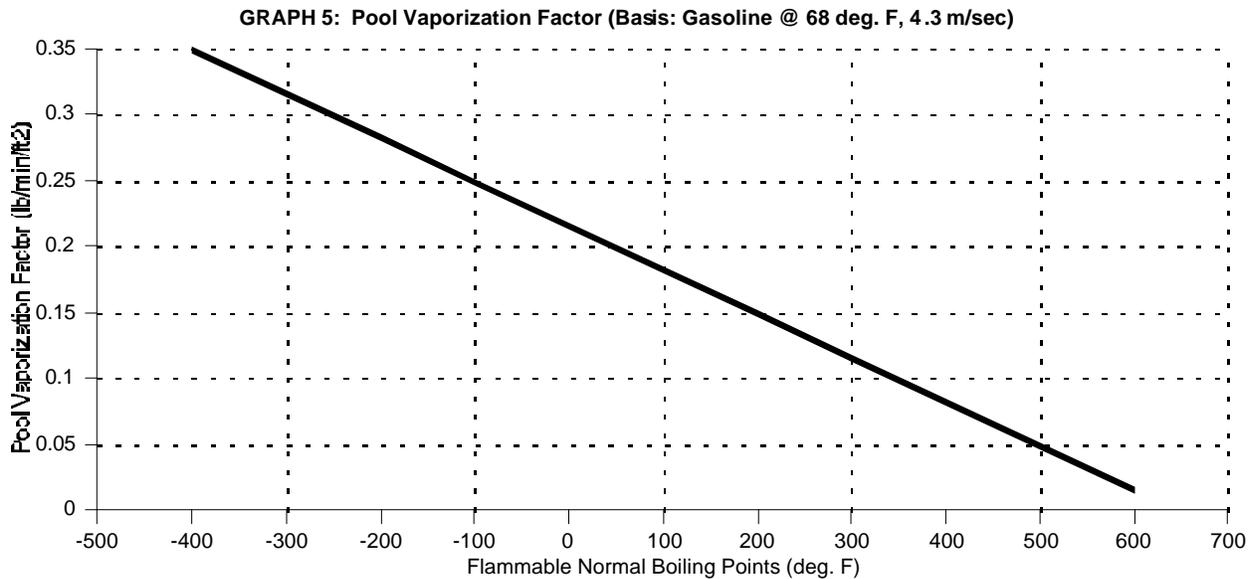
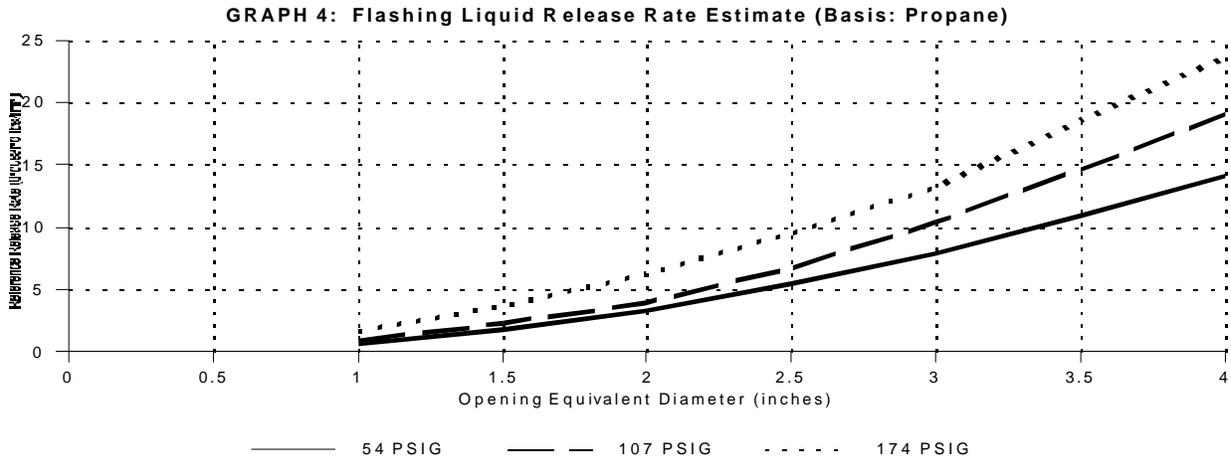


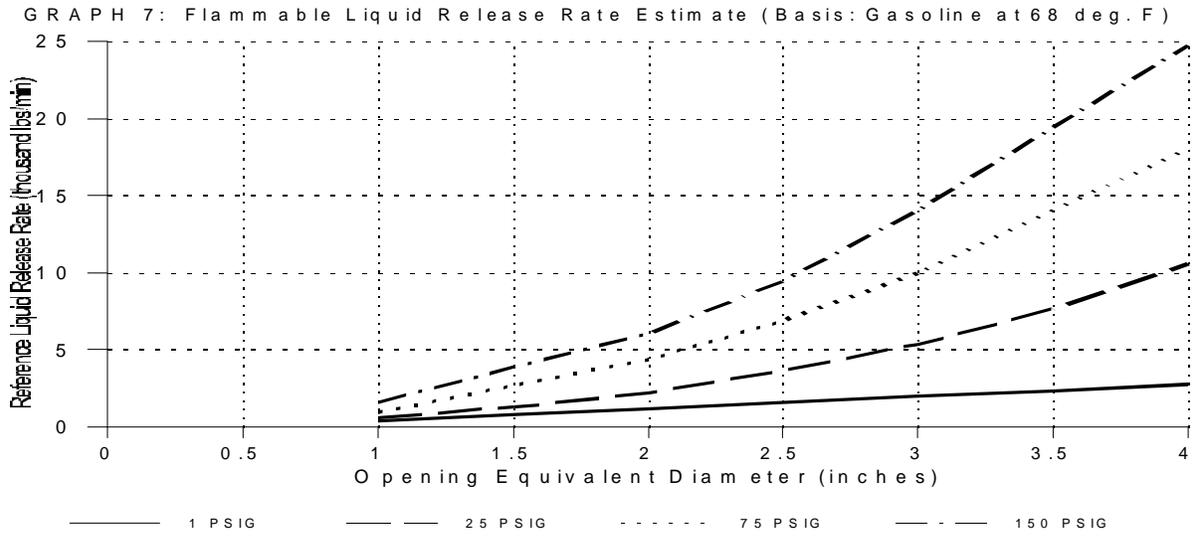
**GRAPH 2: Gas Release Estimate (Basis: Methane at 68 deg. F)**



**GRAPH 3: Flashing Liquid Release Rate Estimate (Basis: Propane)**







STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
DOVER

**EXECUTIVE ORDER  
NUMBER FIFTY-SIX**

TO: HEADS OF ALL STATE DEPARTMENTS,  
AGENCIES AND AUTHORITIES, AND ALL  
POLITICAL SUBDIVISIONS AND  
GOVERNMENTAL UNITS OF THE  
STATE OF DELAWARE

RE: AMENDMENT TO EXECUTIVE ORDER  
NUMBER TWENTY-SEVEN REGARDING THE  
CREATION OF THE VIOLENCE AGAINST  
WOMEN ACT IMPLEMENTATION  
COMMITTEE

WHEREAS, the Violence Against Women Act Implementation Committee was created by Executive Order in 1995; and

WHEREAS, under that Executive Order, the Implementation Committee is charged with a number of responsibilities related to the implementation of the Violence Against Women Act, including making recommendations for the distribution of funding available under that federal legislation; and

WHEREAS, two of the committee's members have recently resigned.

NOW, THEREFORE, I, THOMAS R. CARPER, by the authority vested in me as Governor of the State of Delaware, do hereby declare and order that:

1. Executive Order Number Twenty-Seven is amended by striking the text of paragraph number 3 and inserting in lieu thereof the following:

"The Committee shall be comprised of the following four individuals, representing relevant State efforts to prevent violence against women: the Honorable Vincent J. Poppiti, Chairperson of the Domestic Violence Coordinating Council; the Honorable Patricia M. Blevins, Vice Chairperson of the Domestic Violence Coordinating Council; the Honorable M. Jane Brady, Attorney General of the State of Delaware and member of the Criminal Justice Council; and Raina H. Fishbane, Deputy Legal Counsel, Office of the Governor".

2. Copies of this amendment to Executive Order Number Twenty-Seven shall be distributed with copies of Executive Order Number Twenty-Seven.

Approved this 6th day of December 1998

Thomas R. Carper,  
Governor

Attest:  
Edward J. Freel  
Secretary of State

**EXECUTIVE ORDER  
NUMBER TWENTY-SEVEN**

TO: HEADS OF ALL STATE DEPARTMENTS AND  
AGENCIES

RE: CREATION OF THE VIOLENCE AGAINST  
WOMEN ACT IMPLEMENTATION  
COMMITTEE

WHEREAS, the Violence Against Women Act was signed into law on September 13, 1994 as part of the Violent Crime Control and Law Enforcement Act of 1994 and Delaware will be eligible for substantial funding under that Act; and

WHEREAS, that legislation recognizes the importance of creating a coordinated plan, based-on significant public input and comment, for distributing such funding in a way that best addresses the serious problem of violence against women; and

WHEREAS, a myriad of state, federal, and private agencies support programs touching on the issue of domestic violence; and

WHEREAS, the people of Delaware will best be served by a well-defined, concise and expedited process for distributing funding available under the Violence Against Women Act, particularly if such process incorporates input from relevant organizations, including, but not limited to, law enforcement, the courts, prosecutors and defense attorneys, legislators, the Department of Correction, educators, the medical community, and non-profit, nongovernmental victim services programs; and

WHEREAS, both the Domestic Violence Coordinating Council and the Criminal Justice Council play key roles in guiding state policy in the area of domestic violence; and WHEREAS, the Domestic Violence Coordinating Council is mandated by law to coordinate and improve domestic violence policies, procedures, and services in Delaware; and I WHEREAS, the Criminal Justice Council has statutory responsibility to improve the criminal justice system in general, including services to victims of crime.

NOW, THEREFORE, I, THOMAS R. CARPER, by virtue of the authority vested in me as Governor of Delaware, do hereby order and declare that:

1. There is here established a Violence Against Women Act Committee.

2. The Committee is charged with the following responsibilities:

a. identifying needs and gaps in services for female victims of crime based on public input and input solicited from the Domestic Violence Coordinating Council and the Victim Advisory Committee of the Criminal Justice Council, both of which are comprised of state and private sector members with particular expertise in the area of violence against women;

b. soliciting input from interested individuals, state and federal agencies, and private organizations, including non-profit, nongovernmental victim services programs, about needs and gaps in Delaware services for female victims of violent crime;

c. preparing a comprehensive Plan to obtain and use federal funds available under the Violence Against Women Act and for compliance with the legislation and related regulations;

d. holding training sessions for individuals and groups interested in submitting funding applications, designed to assist potential applicants with the funding selection process;

e. soliciting and reviewing concept papers submitted by grant applicants; and

f. consistent with the Plan, making recommendations on Violence Against Women Act grant recipients to the Criminal Justice Council and the Domestic Violence Coordinating Council for their approval by majority vote, before they are submitted to the Governor for his consideration. If both the Criminal Justice Council and the Domestic Violence Coordinating Council do not approve the Committee's recommendations, they shall be returned to the Committee for modification.

3. The Committee shall be comprised of the following four individuals, representing relevant organizations involved in the State's efforts to prevent violence against women: the Honorable Vincent J. Poppitti, Chairperson of the Domestic Violence Coordinating Council; the Honorable Patricia M. Blevins, Vice Chairperson of the Domestic Violence Coordinating Council; the Honorable Karen L. Johnson, Chairperson of the Criminal Justice Council; and the Honorable Gregory M. Sleet, Chairperson of the Victim Advisory Committee of the Criminal Justice Council.

4. The Committee shall be staffed by staff from the Domestic Violence Coordinating Council and the Criminal Justice Council, as the Committee finds necessary.

5. Federal grants obtained by Delaware as a result of the Violence Against Women Act shall be allocated by the Criminal Justice Council in accordance with the recommendations made pursuant to paragraph 2 of this Order. The Criminal Justice Council shall administer and monitor such grants and shall provide the Committee with

regular reports regarding their status.

APPROVED this 21st day of February, 1995

Thomas R. Carper,  
Governor

ATTEST:  
Edward J. Freel  
Secretary of State

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**GOVERNOR'S APPOINTMENTS**

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1295

<b>BOARD/COMMISSION OFFICE</b>	<b>APPOINTEE</b>	<b>TERM OF OFFICE</b>
Board of Cosmetology & Barbering	Mr. John P. Bonarigo Ms. Bonnie J. Paynter	12/04/01 04/30/00
Board of Examiners of Private Investigators & Sec. Agencies	Mr. James R. Gettier	12/04/01
Board of Occupational Therapy	Ms. Mara Beth Schmittinger	12/01/01
Committee on Employment of People with Disabilities	Ms. Nancy Barnes Ms. Chrys DiRienzo Mr. James Kristof Mr. Scott Ward	12/04/01 12/04/01 12/04/01 12/04/01
Council on Alcoholism, Drug Abuse and Mental Health	Ms. Penny D. Chelucci Mr. R. Nelson Franz Ms. Andrea Guest Ms. Janet E. Leitch Ms. Thelma G. Mayer Ms. Elizabeth B. Pertzoff Ms. Diane Treacy Mr. Gary L. Wirt	12/01/01 12/01/01 12/01/01 12/01/01 12/01/01 12/01/01 12/01/01 12/01/01
Council on Apprenticeship and Training	Mr. Paul Cherry	07/12/99
Council on Banking	Mr. Richard T. Collins Ms. Constance C. McCarthy Mr. Stephen C. Nelson Mr. John F. Porter, III	11/23/01 11/23/01 11/23/01 11/23/01
Council on Environmental Control	Mr. Grover A. Biddle Mr. Robert B. D. Chou Ms. Denise L. Crafts Mr. Ebe S. Townsend	12/08/01 12/08/01 12/08/01 12/08/01
Council on Transportation	Mr. Don C. Brown Mr. Robert P. Hopkins Ms. Elizabeth S. Townsend	12/01/01 12/01/01 12/01/01
Criminal Justice Council	The Honorable Gregory Sleet	Pleasure of the Governor
Delaware Bicycle Council	Mr. Paul W. Layton	04/18/00

**GOVERNOR'S APPOINTMENTS**

<b>BOARD/COMMISSION OFFICE</b>	<b>APPOINTEE</b>	<b>TERM OF OFFICE</b>
Delaware Commission for Women	Ms. Muriel E. Gilman	12/01/01
Delaware Greenways and Trails Council	Mr. Malcolm E. Baird Mr. Paul H. Morrill, Jr.	11/18/01 11/18/01
Delaware Health Care Commission	Mr. A. Herbert Nehrling, Jr.	12/04/02
Delaware Technology Park	Dr. Elmo Beyer, Board of Directors Mr. Darrell J. Minot, Board of Directors Dr. Richard Mumma, Board of Directors	Pleasure of the Governor Pleasure of the Governor Pleasure of the Governor
Domestic Violence Coordinating Council	The Honorable Brian Bushweller	Pleasure of the Governor
Housing Capacity Building Program Advisory Committee	Ms. J. Wendy Burns Ms. Karen A. Curtis Ms. Bernice M. Edwards Mr. Delmas Failing, Jr. Mr. Peter Gilman Ms. Saundra Johnson Mr. Joe L. Myer Ms. Jane C. Vincent	12/08/00 12/08/00 12/08/00 12/08/00 12/08/00 12/08/00 12/08/00 12/08/00
Human Relations Commission	Mr. Calvin H. Christopher Ms. Chok-Fun C. Chui Ms. Nicole Cunningham Mr. James E. Gray Ms. Terri A. Henry Ms. Mary Powell Ms. Judith N. Renzulli Ms. Latricia Odette Wright Ms. Sharon W. Yarborough	12/08/02 12/08/02 12/04/02 05/30/99 03/31/99 12/04/02 04/26/99 12/04/02 03/31/99
Interagency Coordinating Council	Ms. Susan M. Johnson Ms. Marcy G. Kempner Ms. Beth A. MacDonald Ms. Clara I. Maddock Ms. Lisbeth Miller	12/08/01 12/08/01 12/08/01 12/08/01 12/08/01

# GOVERNOR'S APPOINTMENTS

BOARD/COMMISSION OFFICE	APPOINTEE	TERM OF OFFICE
Interagency Coordinating Council	Ms. Margaret S. Odiorne	12/08/01
	Ms. Helen C. Riley	12/08/01
	Dr. Susan Stine	12/08/01
Parental Involvement in Education Committee	Ms. Darlene Bolig	Pleasure of the Governor
	Ms. Connie Lawrence	Pleasure of the Governor
	Ms. Mary Ann Pry	Pleasure of the Governor
Pesticide Advisory Committee	Mr. John Barndt	12/04/01
State Board of Electrical Examiners	Mr. Steven Dignan	12/04/01
	Mr. Bruce A. Goldsborough	12/04/01
State Board of Social Work Examiners	Ms. Frances E. Pruitt	12/01/01
State Emergency Response Commission	Mr. Ralph T. Baker	11/18/00
	Mr. James A. Clendaniel	11/18/00
	Mr. Alfred F. Johnson, Jr.	11/18/00
	Ms. Pamela Meitner	11/18/00
	Mr. John R. Peirce	11/23/00
	Ms. Elizabeth M. Piovoso	11/18/00
State Fire Prevention Commission	Mr. Willard R. Betts, Jr.	08/01/04
	Mr. Kenneth H. McMahon	08/01/04
State Rehabilitation Advisory Council	Ms. Carol Barnett	11/23/01
	Ms. Linda Hance	11/23/01
	Mr. Brent Lewis	11/23/01
	Ms. Regina Milton	11/23/01
Statewide Independent Living Council	Ms. Shirley Gipson	12/01/01
	Ms. Stella Gray	12/01/01
	Mr. Larry D. Henderson	12/01/01
	Mr. John McNeil	12/01/01
	Ms. Gail Speegle	12/01/01
Worker's Compensation Advisory Council	Dr. Leonidas W. Rasis	11/18/01

**DEPARTMENT OF HEALTH AND  
SOCIAL SERVICES  
DIVISION OF SOCIAL SERVICES**

**NOTICE REGARDING THE  
IMPLEMENTATION OF NEW PROVISIONS  
REQUIRING CRIMINAL BACKGROUND  
CHECKS AND DRUG TESTING**

Title 16, Chapter 11, Subchapter III, Section 1141, of the Delaware Code requires the completion of criminal background checks on persons applying for a position in a nursing home or other entity licensed pursuant to 16 Del. C. Ch.11, that affords access to patients or individuals receiving care at such a facility, or any person applying for a license to operate such a facility or business.

Agencies referring temporary employees to a nursing home or other entity covered by this law must also comply and may not refer anyone to such facility who has not been there before without first obtaining a complete criminal background check on the individual.

Another provision of this new law, section 1142, requires drug testing for all persons covered by the new criminal background check provisions. Thus, applicants seeking to work for any entity licensed pursuant to 16 De. C. Ch. 11 must obtain such a test.

The Department of Health and Social Services (DHSS) has the responsibility for implementation of these new requirements and is currently drafting regulations that will go through the formal public review process before adoption. Information, plus the forms to be used, can be obtained by contacting Lennie Warren, DHSS, (302) 577-4950, or Linda Barnett via e-mail at lbarnett@state.de.us.

**DEPARTMENT OF  
ADMINISTRATIVE SERVICES  
DIVISION OF PROFESSIONAL REGULATION  
BOARD OF FUNERAL SERVICES**

A Public Hearing will be held on the proposed revisions to the Rules and Regulations on Wednesday, February 17, 1999, at 10:00 a.m. at the Cannon Building, 861 Silver Lake Boulevard, Public Service Commission Hearing Room, first floor, Dover De 19904. The Board will receive and consider input in writing from interested persons on the proposed revisions to the Rules and Regulations. Final date to submit written comments shall be at the above scheduled public hearing. Anyone wishing to obtain a copy of the proposed revisions or to make comments at the public hearing should notify Susan Miccio at the above address or by calling (302) 739-4522 Ext. 206. A copy of the proposed rules and regulations is also published in the Delaware Register of Regulations published January 1, 1999.

**DEPARTMENT OF  
ADMINISTRATIVE SERVICES  
DIVISION OF PROFESSIONAL REGULATION  
BOARD OF PLUMBING EXAMINERS**

**NOTICE OF PUBLIC HEARING  
DELAWARE BOARD OF PLUMBING EXAMINERS**

PLEASE TAKE NOTICE, pursuant to 29 Del.C. Chapter 101 and 24 Del.C. Section 1805(2), the Delaware Board of Plumbing Examiners has developed and proposes to adopt comprehensive Rules and Regulations. The regulations will describe the Board's organization, operations and rules of procedure, the process and requirements for licensure and certain standards of conduct applicable to licensed plumbers.

A public hearing will be held on the proposed Rules and Regulations on Tuesday, February 2, 1999 at 9:00 a.m. in the Second Floor Conference Room A of the Cannon Building, 861 Silver Lake Boulevard, Dover, Delaware 19904. The Board will receive and consider input in writing from any person on the proposed Rules and Regulations. Any written comments should be subri-fitted to the Board in care of Rosey Vanderhoogt at the above address.. Final date to submit written comments shall be at the above scheduled public hearing. Anyone wishing to obtain a copy of the proposed Rules and Regulations or to make comments at the public hearing should contact Rosey Vanderhoogt at the above address or by calling (302) 739-4522 extension 203.

This notice will be published in two newspapers of general circulation not less than twenty (20) days prior to the date of the hearing.

**DEPARTMENT OF AGRICULTURE  
HARNESS RACING COMMISSION**

Copies of the existing regulations and proposed regulations are attached. The public may obtain copies of the proposed regulations from the commissioner's Office, 2320 S. DuPont Highway, Dover, DE 19901, phone (302) 739-4811. The Commission will accept written public comments from January 1, 1999 to January 30, 1999.

**DEPARTMENT OF AGRICULTURE  
THOROUGHBRED RACING COMMISSION**

The public may obtain copies of the proposed regulations from the Commissions Office, 2320 S. DuPont Highway, Dover, DE 19901, phone - (302) 739-4811. The Commission will accept written comments from January 1, 1999 to January 30, 1999 which can be submitted to the Commission office at 11:00 a.m. at the office of the Department of Agriculture, 2320 S. DuPont Highway, Dover, DE.

**DEPARTMENT OF EDUCATION**

The State Board of Education will hold its monthly meeting on Thursday, January 21, 1999 at 11:00 a.m.

**DEPARTMENT OF HEALTH AND  
SOCIAL SERVICES  
DIVISION OF SOCIAL SERVICES**

**PUBLIC NOTICE  
DIVISION OF SOCIAL SERVICES**

Delaware Health and Social Services is proposing changes to regulations contained in the Division of Social Services Manual Section 9085. These changes are initiated pursuant to 29 Delaware Code Section 10114 and its authority as prescribed by 31 Delaware Code Section 512. Written materials and suggestions by interested persons for related to this proposal must be forwarded by January 31, 1999 to the Director, Division of Social Services, P. O. Box 906, New Castle, DE 19720.

**DEPARTMENT OF HEALTH AND  
SOCIAL SERVICES**  
**DIVISION OF SOCIAL SERVICES****PUBLIC NOTICE**  
**Medicaid / Medical Assistance Program**

In compliance with the State's Administrative Procedures Act (APA - Title 29, Chapter 101 of the Delaware Code) and with 42CFR §447.205, and under the authority of Title 31 of the Delaware Code, Chapter 5, Section 505, the Delaware Department of Health and Social Services (DHSS) / Division of Social Services / Medicaid Program is amending its eligibility manual.

Any person who wishes to make written suggestions, compilations of data, testimony, briefs or other written materials concerning the proposed new regulations must submit same to the Director, Medical Assistance Programs, Division of Social Services, P.O. Box 906, New Castle, DE 19720 by January 31, 1999.

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**DIVISION OF SOCIAL SERVICES****PUBLIC NOTICE**  
**Medicaid / Medical Assistance Program**

In compliance with the State's Administrative Procedures Act (APA - Title 29, Chapter 101 of the Delaware Code) and with 42CFR §447.205, and under the authority of Title 31 of the Delaware Code, Chapter 5, Section 505, the Delaware Department of Health and Social Services (DHSS) / Division of Social Services / Medicaid Program is amending its outpatient hospital, inpatient hospital, EPSDT, general policy provider manual(s) and issuing a new provider manual for School Based Health Services.

Any person who wishes to make written suggestions, compilations of data, testimony, briefs or other written materials concerning the proposed new regulations must submit same to the Director, Medical Assistance Programs, Division of Social Services, P.O. Box 906, New Castle, DE 19720 by January 31, 1999.

**DEPARTMENT OF NATURAL  
RESOURCES AND  
ENVIRONMENTAL CONTROL**  
**DIVISION OF AIR AND WASTE MANAGEMENT**  
**AIR QUALITY MANAGEMENT SECTION****REGULATION 37 - NOx Budget Program**

The Department is proposing a new regulation that will require boilers and indirect heat exchangers equal to and larger than 250 mmBTU/hr, and electrical generating units equal to and larger than 25 MWe to reduce nitrogen oxide (NOX) emissions. Since the air in Delaware does not meet the national ambient air quality standard (NAAQS) for the pollutant ozone, and since NOX is a key participant in the formation of ozone, NOX emissions must be reduced in order for Delaware to attain the NAAQS for ozone. To aid industry in making the necessary reductions in a more cost effective manner, the Department is proposing to allow compliance with the emission caps established by the proposed regulation through a regional cap and trade program. This proposal is substantially the same regulation that was published in the November 1997 and February 1998 Delaware Register, and that was vacated by the Delaware Superior Court in December 1998.

**NOTICE OF PUBLIC COMMENT:**

The public hearing on proposed Regulation 37 will be held on Thursday, January 21, 1998, beginning at 6:00 p.m. in the dover Central Middle School Auditorium, Delaware Avenue, Dover, DE.

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**DIVISION OF AIR AND WASTE MANAGEMENT**  
**AIR QUALITY MANAGEMENT SECTION**

The Department of Natural Resources and Environmental Control, in accordance with 7 Del. C. §6010, has revised Regulations 1 and 3 of the Regulations Governing the Control of Air Pollution. The amendments add one (1) definition to Regulation No. 1, and revises Sections 6 and 11 of Regulation No. 3. These changes are to accommodate the new National Ambient Air Quality Standards for Ozone and Fine Particulate Matter.

**Notice Of Public Comment:**

The Secretary of The Department of Natural Resources and Environmental Control has scheduled a public hearing on February 10, 1999, for the purpose of considering certain amendments to the Regulations Governing the Control of

Air Pollution. The revisions amend Regulations No. 1 and 3, which will add a new definition pertaining to Fine Particulate Matter, commonly known as PM<sub>2.5</sub>; add a new 8-hour standard for Ozone, and define the manner in which compliance with the standards being changed are to be determined.

The public hearing on February 10, 1999, will be held in the Department's auditorium at Kings Highway in Dover, at 6:00 PM.

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## DIVISION OF FISH AND WILDLIFE

### BOATING REGULATIONS

Amendments are being proposed to: 1) define the terms "operate," "ship lifeboat" and "passenger for hire;" 2) update the regulations to reflect the enactment of Senate Bill No. 290 and House Bill No. 55; 3) authorize the revocation, cancellation or suspension of a certificate of number under certain conditions; 4) require owners of homemade vessels to file a photograph of such vessel with the Division of Fish and Wildlife before the certificate of number is issued or renewed; 5) prevent vessels used exclusively as boat docking facilities from being issued certificates of number; 6) require owners of vessels subject to registration and used as boat docking facilities to comply with 7 Delaware Code, Chapter 72 (relating to the use of subaqueous lands); 7) establish criteria for reviewing applications from persons engaged in both retail sales and repairs of boats to issue boat registrations; and 8) correct typographical errors.

#### Notice of Public Comment:

A public hearing will be held on February 1, 1999, at 7:30 p.m. in the auditorium of the Richardson and Robbins Building, 89 Kings Highway, Dover, Delaware. Comments may be in writing or may be presented orally at the hearing. Written comments must be received by the Division of Fish and Wildlife no later than 4:30 p.m. on February 8, 1999, and should be addressed to James H. Graybeal, Chief of Enforcement, Division of Fish and Wildlife, 89 Kings Highway, Dover, Delaware 19901.

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## DIVISION OF FISH AND WILDLIFE FISHERIES SECTION

### TIDAL FINFISH REGULATION NO. 10 WEAKFISH SIZE LIMITS; POSSESSION LIMITS; SEASONS

In order to remain in compliance with the Weakfish Fishery Management Plan, as amended, and to allow the

maximum creel limit on weakfish, the daily creel limit and minimum size limit on weakfish for recreational and commercial hook and line fishermen are proposed to be increased from 6 per day at 13 inches to 14 per day at 14 inches. Six weakfish per day at 13 inches minimum size is the conservation equivalent in fishing mortality rate to 14 weakfish per day at 14 inches minimum size. The fishing mortality rate must remain at or below 0.76 with these adjusted size and creel limits for 1999.

The number of days the gill net fishery and the Delaware Bay and Ocean fishery with any fishing equipment other than a hook and line for weakfish must be closed to meet the requirements of the Weakfish Fishery Management Plan remains at 34 days in 1999. The 1998 dates are adjusted to 1999 dates in order that the fishing mortality rate remains at or below the target level of 0.76 in 1999.

The Department must comply with the management requirements of the Weakfish Fishery Management Plan, as amended, approved by the Atlantic States Marine Fisheries Commission. The total fishing mortality rate for weakfish must remain at or below 0.76 in 1999.

#### NOTICE OF PUBLIC COMMENT:

Individuals may present their opinions and evidence and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior to 4:30 PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 10 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

### TIDAL FINFISH REGULATION NO. 24 FISH POT REQUIREMENTS

Food fish are routinely captured in commercial crab pots or crab dredges. Crab pots and crab dredges are not currently listed as legal fishing equipment to fish for food fish. Rather than require crab pots to be reconstructed to be fish pots as defined in 7 Del. C. §1901(2), crab pots and crab dredges will be legal fishing equipment for taking food fish.

Authorizing the use of crab pots and dredges as a legal means to take food fish does not authorize the sale of same. A commercial food fishing license is required to sell any food fish regardless of how they are caught.

#### NOTICE OF PUBLIC COMMENT:

Individuals may present their opinions and evidence and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior

to 4:30 PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 24 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

**TIDAL FINFISH REGULATION NO. 26 AMERICAN SHAD AND HICKORY SHAD CREEL LIMITS.**

In order to comply with the Shad and River Herring Fishery Management Plan recently adopted by the Atlantic States Marine Fisheries Commission, a 10 fish creel limit on American shad and Hickory shad is required for recreational fishermen. The Department proposes a new TIDAL FINFISH REGULATION NO. 25 to implement this creel limit.

The 10 fish/day creel limit applies to an aggregate of American Shad and Hickory Shad.

**NOTICE OF PUBLIC COMMENT:**

Individuals may present their opinions and evidence and/or request additional information by writing, calling or visiting the Division of Fish and Wildlife, Fisheries Section, 89 Kings Highway, Dover, DE 19901 (302) 739-3441, prior to 4:30PM on February 5, 1999. A public hearing on proposed amendments to TIDAL FINFISH REGULATION NO. 26 will be held in the Department of Natural Resources and Environmental Control auditorium, 89 Kings Highway, Dover, DE at 7:30 PM on February 2, 1999.

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**DEPARTMENT OF PUBLIC SAFETY**  
**ALCOHOLIC BEVERAGE CONTROL COMMISSION**

In compliance with 29 Del.C. section 10115, the Commission submits the following:

The Delaware Alcoholic Beverage Control Commission is proposing to amend Rule 29. The rule as amended provides non-discriminatory procedures for timely notification of prices, post-offs, and quantity discounts of alcoholic liquor offered for sale by Delaware wholesalers to Delaware retailers and governs related practices.

**NOTICE OF PUBLIC COMMENT:**

A public hearing on the proposed amendment to Rule 29 will be held on January 26, 1999 at 1:30 p.m. in the third floor conference room of the Commission, Carvel State Building, 820 North French Street, Wilmington, Delaware.

The Commission will accept written comments from the public from January 1, 1999 through January 31, 1999. Written comments may be sent to Donald J. Bowman, Sr., Director, Delaware Alcoholic Beverage Control Commission, 820 North French Street, Wilmington, Delaware, 19801. For copies of the proposed regulation, the public should call Joanne Episcopo at (302) 577-5222.

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**DELAWARE RIVER BASIN COMMISSION**

**P.O. Box 7360**  
**West Trenton, New Jersey**

The Delaware River Basin Commission will meet on Wednesday, January 27, 1998, West Trenton, New Jersey. For more information contact Susan Weisman at (609)883-9500 ext. 203.

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**DELAWARE RIVER BASIN COMMISSION**

**P.O. Box 7360**  
**West Trenton, New Jersey**

**The Delaware River Basin Commission will meet on Tuesday, January 5 to consider a possible Drought Emergency Declaration. For more information contact Susan Weisman at (609)883-9500 ext. 203.**

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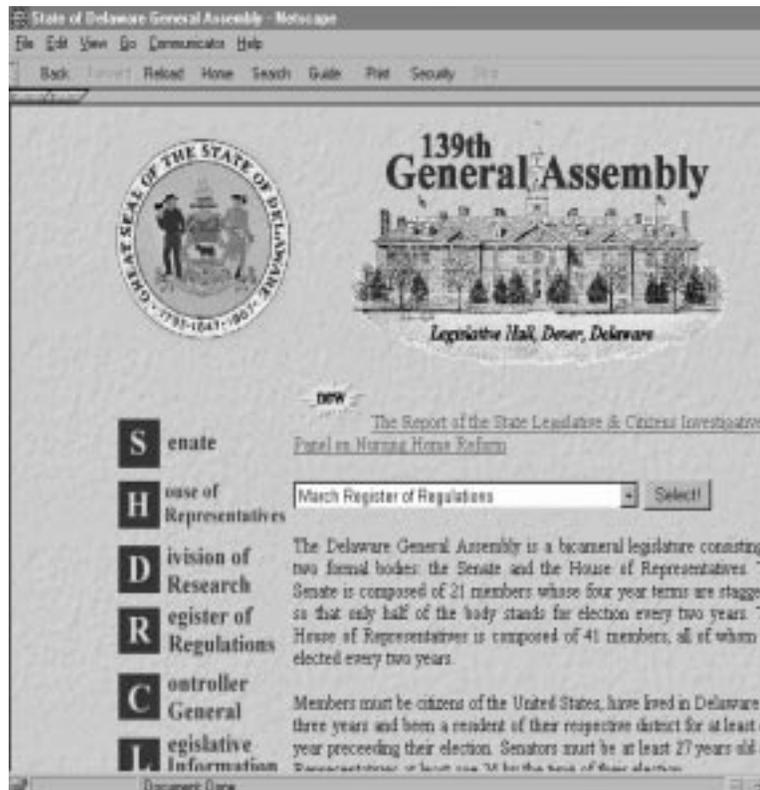
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